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Attorneys for Plaintiffs
ATELIERS DE LA HAUTE-GARONNE
F2C2 SYSTEM S.A.S.

IN THE UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF CALIFORNIA
CENTRAL DIVISION

ATELIERS DE LA HAUTE-
GARONNE, a French corporation,
F2C2 SYSTEM S.A.S., a French
corporation,

Plaintiffs,

v.
BROETJE AUTOMATION, USA INC.,
a Delaware corporation, CLAAS
FERTINGUNGSTECHNIK GMBH
D/B/A BROETJE AUTOMATION
GMBH, a German corporation, CLAAS
KGAA MBH, a German corporation,

Defendants.

CASE NO.

CV 09-03350

CASE (09-03350)

COMPLAINT FOR:

- (1) PATENT INFRINGEMENT
- (2) UNFAIR COMPETITION UNDER THE LANHAM ACT
- (3) UNFAIR COMPETITION
- (4) TRADE DRESS INFRINGEMENT
- (5) INTENTIONAL INTERFERENCE WITH PROSPECTIVE BUSINESS ADVANTAGE

DEMAND FOR JURY TRIAL

INTRODUCTION

1. Plaintiffs Ateliers de la Haute-Garonne (“AHG”) and F2C2 System
2 S.A.S. (collectively “AHG”) are small family owned and operated French companies
3 that own and license, respectively, a patented process and apparatus for dispensing
4 rivets used in assembling aircraft. Founded in 1915 by patriarch Marcellin Auriol,
5 Ateliers de la Haute-Garonne has been involved with the rivet and rivet machinery
6 industry for over 80 years. From the 1920’s, when the company began producing
7 rivets for use in the farming and hardware industry, to the 1950’s, when the company
8 began manufacturing rivets for the aeronautical industry, to present day, where its
9 commercial emphasis is focused on offering rivets and rivet machinery in the
10 aerospace and aeronautical market, the company has innovated and endeavored to
11 meet the practical challenges presented by the use of rivets in various industries.

12 2. AHG’s inventive rivet dispensing technology, which is the subject of this
13 Complaint, was the result of the hard work, intelligence, and creativity of Mr. Jean-
14 Marc Auriol (Mr. Marcellin Auriol ’s grandson) and Mr. Philippe Bornes (Mr. Jean-
15 Marc Auriol’s son-in-law) and its novelty is reflected in the patents now held by
16 AHG. The innovative process and apparatus claimed in these patents is highly
17 regarded in the industry and has been widely adopted.

18 3. On information and belief, shortly after the patents that are the subject of
19 this Complaint were issued, and recognizing the need to offer products embodying the
20 innovative technology developed by AHG, Defendant Claas Fertigungstechnik
21 GmbH d/b/a Broetje Automation GmbH, a German corporation, approached AHG to
22 enter into an agreement whereby AHG would manufacture and sell the patented
23 technology to Defendant, who would then resell the products to customers worldwide.

24 4. On information and belief, in or around 2005, Defendants Claas KGaA
25 mbH, Claas Fertigungstechnik GmbH d/b/a Broetje Automation GmbH, and Broetje
26 Automation USA, Inc. (collectively “Broetje”), unilaterally terminated its commercial
27 relationship with AHG.

5. In 2005, Plaintiffs discovered evidence of Defendants' patent infringement in Germany, and promptly filed a lawsuit before a German Tribunal to stop such unlawful conduct.

6. In 2006, Plaintiffs discovered evidence of Defendants' patent infringement in France, and promptly filed a lawsuit before a French Tribunal to stop such unlawful conduct.

7. In 2007, Plaintiffs discovered evidence of Defendants patent infringement in the United States. Defendants, once again, are engaged in a campaign of willful patent infringement and unfair competition, unlawfully using Plaintiffs' intellectual property to lure customers away from Plaintiffs and seriously eroding Plaintiffs' profit margins. Accordingly, Plaintiffs complain and allege as follows against Broetje:

PARTIES AND NATURES OF ACTION

8. This lawsuit is an action for patent infringement, unfair competition, trade dress infringement, and intentional interference with prospective business advantage.

9. Plaintiff Ateliers de la Haute-Garonne is a corporation organized under the laws of France with a principal place of business at LD Roumo, 31130 Flourens, Toulouse, France. AHG is the owner of the intellectual property that is the subject of this Complaint.

10. Plaintiff F2C2 System S.A.S. is a corporation organized under the laws of France with a principal place of business at Z.I. de Flourens, Route de Mauressac, 31130 Flourens, Toulouse, France. F2C2 System S.A.S. is an exclusive licensee under the patents and manufactures rivet dispensing cassettes and systems on behalf of AHG.

11. On information and belief, defendant Claas KGaA mbH is a corporation organized under the laws of Germany and has a principal place of business at Munsterstr. 33, 33428 Harsewinkel, Germany.

12. On information and belief, defendant Claas Fertigungstechnik GmbH d/b/a/ Broetje Automation, GmbH, a wholly owned subsidiary of Claas KGaA mbH, is a corporation organized under the laws of Germany and has a principal place of business at Stahlstr. 1-5, D-26215, Wiefelstede, Germany.

13. On information and belief, defendant Broetje Automation, USA Inc., a wholly owned subsidiary of Claas Fertigungstechnik GmbH d/b/a/ Broetje Automation, GmbH, is a corporation organized under the laws of Delaware and has a principal place of business at 8401 S.132nd St. Omaha, NE 68138.

14. AHG and Broetje are competitors in the rivet industry.

JURISDICTION AND VENUE

15. This Court has subject matter jurisdiction over the patent infringement claims under 28 U.S.C. §§ 1331, 3381(a) and under the Patent Laws of the United States, 35 U.S.C. §§§ 101, *et seq.* This Court has jurisdiction over the federal unfair competition and trade dress infringement claims under Section 43(a) of the Lanham Act, 15 U.S.C. 1121(a), 1125(a), and 28 U.S.C. § 1338(b). This Court has jurisdiction over the state law claims under 28 U.S.C. § 1367(a), as these state law claims are so related to the patent infringement and federal unfair competition claims that they form part of the same case or controversy.

16. This Court has personal jurisdiction over Broetje because, *inter alia*,
Broetje: (1) transacts business within the State of California and the Central District;
(2) has purposefully directed the use of infringing products and has purposefully
caused consumer confusion as to the origin of goods in this judicial district; and (3) is
causing damage to AHG in this judicial district.

17. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(b) because Broetje has committed acts of infringement and actual consumer confusion in this district and has a regular and established business in this district. Venue is also proper in this district pursuant to 28 U.S.C. § 1391 because the events or omissions which give rise to this action occurred in this district and Broetje is a corporation that

1 is subject to personal jurisdiction in California.

2 **BACKGROUND**

3 **The Patents**

4 18. On April 30, 1991, United States Patent No. 5,011,339 ("the '339
5 Patent"), entitled "Process For Distribution of Pieces Such As Rivets, And Apparatus
6 For Carrying Out The Process," was duly and legally issued by the United States
7 Patent and Trademark office to Jean-Marc Auriol and Philippe Bornes. AHG is the
8 owner, by assignment, of the entire right, title, and interest in and to the '339 Patent.
9 A true and correct copy of the '339 Patent is attached as Exhibit A.

10 19. On September 1, 1992, United States Patent No. 5,143,216, ("the '216
11 Patent"), also entitled "Process For Distribution of Pieces Such As Rivets, And
12 Apparatus For Carrying Out The Process," was duly and legally issued by the United
13 States Patent and Trademark office to Jean-Marc Auriol and Philippe Bornes. AHG is
14 the owner, by assignment, of the entire right, title, and interest in and to the '216
15 Patent. A true and correct copy of the '216 Patent is attached as Exhibit B.

16 **Rivet Dispensing Technology**

17 20. Rivets are used in the manufacture and assembly of aircraft. AHG's
18 patented technology is used in automatically dispensing those rivets from a machine in
19 such a way that the rivets are prevented from becoming lodged, or stuck, in the
20 dispensing tube. One key component of AHG's technology is the presence of grooves
21 along the inner lining of the tubing which keeps the rivets moving along the length of
22 the tube.

23 21. AHG's patented rivet dispensing technology is housed in an apparatus
24 known as a "cassette." AHG manufactures and supplies not only the rivet dispensing
25 cassettes, but also rivets, and riveting systems and machines which hold the cassettes.

26 **AHG and Broetje Enter Into An Exclusive Distribution Agreement**

27 22. Upon information and belief, shortly after the issuance of the patents and
28 at a Society of Automotive Engineers Conference held in the United States, Boeing,

1 the world's leading aerospace company and the largest manufacturer of commercial
2 jetliners and military aircraft, learned of AHG's innovative rivet dispensing
3 technology. Boeing was using Broetje's products for all of its assembly line needs,
4 including riveting machinery, but, after learning of AHG's innovative technology,
5 Boeing specifically requested that Broetje begin offering products that incorporate this
6 technology.

7 23. Upon information and belief, as a direct result of Boeing's request,
8 Broetje and AHG entered into an agreement regarding the patented rivet dispensing
9 products. Under the terms of the agreement, AHG would manufacture and sell the
10 patented products to Broetje who would then distribute the products to customers
11 worldwide, including to Boeing and other customers located in the United States.
12

13 24. Upon information and belief, during the course of negotiating the
14 agreement, AHG identified the '339 and '216 Patents as covering the patented
15 products and also described to Broetje the key components of the patented technology.
16

17 25. From 1994 until 1998, Boeing was the sole customer of AHG's patented
18 technology vis-a-vis the agreement with Broetje.
19

20 26. Beginning in 1998, the demand for AHG's rivet dispensing products
21 grew and by 2004, the United States client list included: Boeing (for sites located in
22 Long Beach, CA, St. Louis, MO, Macon, GA, and Seattle, WA), Spirit, Vought,
23 Apache Aerospace and Gulfstream.
24

25 27. From 1994 to 2004, Broetje placed orders with AHG for the patented
26 technology in accordance with the parties' agreement.
27

28 **Broetje Terminates its Commercial Relationship with AHG and Manufactures its
own Rivet Dispensing Cassettes**

29 28. Upon information and belief, in or around 2003, Broetje was acquired by
30 a large German conglomerate known as the Claas Group.
31

1 29. Upon information and belief, in or around 2005, Broetje stopped placing
2 orders with AHG for the patented rivet dispensing cassettes.

3 30. Upon information and belief, in or around 2005, Broetje, without AHG's
4 knowledge or consent, began making identical copies of AHG's rivet dispensing
5 cassettes and began selling these poor quality substitute products to Broetje's German
6 clients.

7 31. In or around 2005, F2C2 System S.A.S.'s General Manager and
8 technician, Mr. Philippe Bornes, traveled to an Airbus assembly site in Bremen,
9 Germany in order to conduct a routine maintenance operation. While there, Mr.
10 Bornes first noticed the use of Broetje's cassettes which were installed in AHG's
11 riveting machines and systems.

12 32. In or around June, 2006, Mr. Pierre-Alan Girard, a technician with F2C2
13 System S.A.S., conducted another maintenance operation at the Airbus assembly site
14 located in Bremen, Germany where he observed more than 30 rivet dispensing
15 cassettes bearing the Broetje brand installed in AHG riveting machinery. He noted
16 that these cassettes appeared identical to those manufactured by AHG and that the
17 shape of the tubing used in the cassettes, one key component of the patented
18 technology, was identical to that used in AHG cassettes.

19 33. On November 15, 2006, as a result of Broetje's infringement in Germany
20 and in an effort to protect its valuable intellectual property rights, AHG promptly
21 brought suit against Broetje in Germany, before the Hamburg tribunal, alleging
22 infringement of AHG's European Patents covering rivet dispensing technology. On
23 May 31, 2007, judgment against AHG was entered and on November 8, 2007, AHG
24 filed an appeal, which is currently pending.

25 34. In or around May, 2006, Mr. Girard conducted maintenance at Airbus's
26 assembly site located in Meaulte, France. At this site, he noticed that the cassettes
27 being used at this facility were manufactured by Broetje and appeared identical to
28 those manufactured and sold by AHG.

35. On May 5, 2008, as a result of Broetje's infringement in France and in an effort to protect its valuable intellectual property rights, AHG promptly brought suit against Broetje in France, before the Tribunal of First Instance in Paris, alleging infringement of AHG's European Patents covering rivet dispensing technology. This proceeding is currently pending.

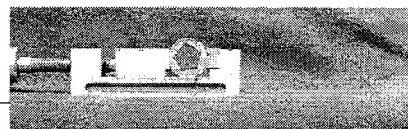
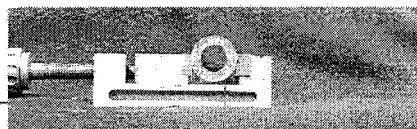
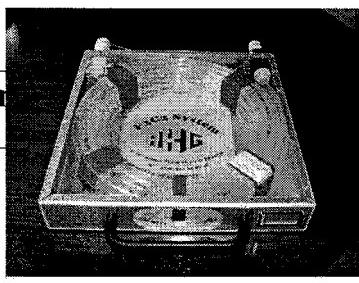
36. In or around September, 2007, Mr. Girard conducted a maintenance operation at the Spirit Aerosystems assembly site located in Wichita, KS. Mr. Girard noticed several rivet dispensing cassettes which were manufactured by Broetje and which were loaded onto AHG riveting machines and systems. Again, these cassettes were identical to those manufactured and sold by AHG.

37. On information and belief, the infringing cassettes manufactured and sold by Broetje to various customers are poor quality knock-off products made to look exactly like an AHG cassette. Below are side by side comparisons of true and accurate images of AHG's patented products and Broetje's infringing products:

Comparison of Rivet Dispensing Cassettes



Comparison of Tubi



38. On information and belief, the infringing cassettes manufactured and sold by Broetje are engineered to be compatible with and to be installed into riveting machines and systems made by AHG.

39. On information and belief, Broetje continued its relationship with various US clients, including Boeing, Spirit, Vought, Apache Aerospace and Gulfstream, but, substituted its own rivet dispensing cassette in place of AHG's patented rivet dispensing cassette and delivered the substitute product to customers without the knowledge of either the customer or AHG.

FIRST CLAIM FOR RELIEF

(Infringement of the ‘339 Patent)

40. AHG repeats and realleges each of the allegations contained in paragraphs 1 through 39 as though fully set forth herein.

41. On information and belief, Broetje is infringing the ‘339 Patent by making, using, offering for sale, and/or selling within the United States systems that embody the inventions disclosed and claimed in the ‘339 Patent and/or by importing into the United States devices that embody the inventions disclosed and claimed in the ‘339 Patent. On information and belief, Broetje has been and is currently infringing one or more claims of the ‘339 Patent pursuant to 35 U.S.C. § 271.

42. On information and belief, Broteje has been and continues to make, use, and sell products that incorporate systems and methods for dispensing rivets through a tube.

43. On information and belief, in addition to direct infringement, Broetje has induced and contributed to the infringement by others of the ‘339 Patent.

44. On information and belief, Broetje has notice, pursuant to the parties' agreement, that it is infringing the '339 Patent. Despite such notice, Broetje has continued to willfully infringe the '339 Patent by making, using, offering to sell, and/or selling within the United States the methods disclosed and claimed by the '339

Patent.

45. As a result of Broetje's acts of infringement, AHG has suffered and will continue to suffer damages in an amount to be proven at trial.

46. This case is an “exceptional” case within the meaning of 35 U.S.C. § 285 and AHG is entitled to an award of attorneys’ fees.

SECOND CLAIM FOR RELIEF

(Infringement of the '216 Patent)

47. AHG repeats and realleges each of the allegations contained in paragraphs 1 through 46 as though fully set forth herein.

48. On information and belief, Broetje is infringing the ‘216 Patent by making, using, offering for sale, and/or selling within the United States devices that embody the inventions disclosed and claimed in the ‘216 Patent, and/or by importing into the United States devices that embody the inventions disclosed and claimed in the ‘216 Patent. On information and belief, Broetje has been and is currently infringing one or more claims of the ‘216 Patent, pursuant to 35 U.S.C. § 271.

49. On information and belief, in addition to direct infringement, Broetje has induced the infringement by others of the ‘216 Patent.

50. On information and belief, Broetje has notice, pursuant to the parties' agreement, that it is infringing the '216 Patent. Despite such notice, Broetje has continued to willfully infringe the '216 Patent by making, using, offering to sell, and/or selling within the United States products that embody the inventions disclosed and claimed by the '216 Patent.

51. As a result of Broetje's acts of infringement, AHG has suffered and will continue to suffer damages in an amount to be proven at trial.

52. This case is an “exceptional” case within the meaning of 35 U.S.C. § 285 and AHG is entitled to an award of attorneys’ fees.

THIRD CLAIM FOR RELIEF

(Unfair Competition under the Lanham Act)

53. AHG repeats and realleges each of the allegations contained in paragraphs 1 through 52 as though fully set forth herein.

54. On information and belief, Broetje has used and is using false and misleading representations of fact when it manufactures and sells substitute rivet dispensing cassettes which are substantially identical to AHG's cassettes and which are engineered to fit into AHG's riveting machinery and systems. On further information and belief, Broetje's substitution was part of an intentional plan to deceive customers by passing off its products as originating from AHG.

55. On information and belief, Broetje sells its knock-off products in interstate commerce in the United States.

56. Broetje's sales of its poor quality substitute cassettes to customers causes actual confusion as to the origin of the rivet dispensing cassette. Moreover, this scheme has enabled Broetje to obtain the benefit of AHG's goodwill.

57. Broetje's acts and conduct constitute unfair competition under section 43(a) of the Lanham Act.

58. Broetje's conduct has caused AHG to suffer damages including loss of sales, dilution of goodwill and injury to AHG's reputation in an amount as yet unknown but to be proven at trial. In addition, AHG has incurred and will continue to incur attorneys' fees and costs in bringing the present action.

59. Unless enjoined by this Court, Broetje will continue its unfair business practices to the irreparable damage and injury of AHG.

60. AHG has no adequate remedy at law.

FOURTH CLAIM FOR RELIEF

(Common Law Unfair Competition)

61. AHG repeats and realleges each of the allegations contained in paragraphs 1 through 60 as though fully set forth herein.

1 62. AHG has expended substantial time, resources and effort in developing
2 its rivet dispensing cassettes.

3 63. Broetje's unlawful acts in appropriating AHG's cassettes were intended
4 to capitalize on AHG's goodwill. As a result of AHG's efforts, Defendants are now
5 unjustly enriched and are benefiting from property rights that belong to AHG.

6 64. On information and belief, Broetje sells its knock-off products in
7 interstate commerce in the United States.

8 65. On information and belief, Broetje has, without permission or authority,
9 used and is using false and misleading representations of fact when it manufactures
10 and sells substitute rivet dispensing cassettes which are substantially identical to
11 AHG's rivet dispensing product and which are engineered to fit into AHG's riveting
12 machinery and systems. On further information and belief, Broetje's substitution was
13 part of an intentional plan to deceive customers by passing off its products as
14 originating from AHG. Broetje, by misappropriating and using knock-off substitute
15 cassettes, has misrepresented to the general public the origin, source, association,
16 affiliation or sponsorship of their products so as to create the likelihood of confusion
17 by the ultimate purchaser as to both the source and sponsorship of the products.

18 66. Broetje's unauthorized use of AHG's rivet dispensing cassette has caused
19 and is likely to cause confusion as to the source of Broetje's products, all to the
20 detriment of AHG.

21 67. Broetje's acts are reckless, willful, deliberate and/or intended to confuse
22 the public and to injure AHG.

23 68. Broetje's acts constitute unfair competition under California common
24 law.

25 69. Unless enjoined by this Court, Broetje will continue its unfair, or
26 fraudulent business practices to the irreparable damage and injury of AHG.

27 70. Broetje's conduct was extreme, outrageous, fraudulent, and was inflicted
28 on AHG in reckless disregard of AHG's rights. This conduct was and is harmful to

AHG and as such supports an award of exemplary and punitive damages in an amount sufficient to punish Broetje and to deter Broetje from similar conduct in the future.

71. AHG has no adequate remedy at law.

FIFTH CLAIM FOR RELIEF

(Trade Dress Infringement)

72. AHG repeats and realleges each of the allegations contained in paragraphs 1 through 71 as though fully set forth herein.

8 73. Since 1994, AHG has continuously sold cassettes in interstate commerce
9 in the United States in connection with sales of its rivet dispensing technology. These
10 cassettes have a trade dress which is inherently distinctive and which has acquired
11 secondary meaning. Since 1994, customers have come to recognize and accept and
12 associate the distinctive cassette with AHG's high quality product. Since 1994,
13 Plaintiff has expended effort in producing high quality cassette products and as a
14 result, has generated a great deal of goodwill.

15 74. AHG's trade dress is non-functional.

16 75. Broetje's use of AHG's cassette trade dress, as demonstrated in the chart
17 above comparing Broetje's product to AHG's product, has caused and is likely to
18 cause confusion as to the source or origin of Broetje's products.

19 76. Broetje's acts constitute trade dress infringement.

20 77. Unless enjoined by this Court, Broetje will continue its trade dress
21 infringement to the irreparable damage and injury of AHG.

22 78. AHG has no adequate remedy at law.

23 79. As a result of Broetje's acts of infringement, AHG has suffered and will
24 continue to suffer damages in an amount to be proven at trial.

SIXTH CLAIM FOR RELIEF

(Intentional Interference with Prospective Economic Advantage)

27 80. AHG repeats and realleges each of the allegations contained in
28 paragraphs 1 through 79 as though fully set forth herein.

81. AHG has expended substantial time, resources and effort in developing its proprietary rivet dispensing cassettes. AHG had a prospective and actual economic advantage with multiple third parties to provide its proprietary cassettes.

82. Broetje, by acting as a distributor on behalf of AHG, was aware of the economic and business relationship between AHG and various third parties including Boeing, Spirit, Vought, Apache Aerospace and Gulfstream.

83. On information and belief, Broetje appropriated AHG's economic advantage by manufacturing and selling substitute rivet dispensing cassettes to customers in an effort to interfere with the business relationship existing between these customers and AHG.

84. On information and belief, Broetje knew that AHG had an interest in maintaining and continuing its business relationship with these customers.

85. Broetje committed fraud in manufacturing and selling substitute knock-off rivet dispensing cassettes to these customers with the intent to deceive customers as to the origin of these products and to deceive customers into believing that they were continuing to purchase AHG products.

86. On information and belief, Broetje infringed AHG's patents when manufacturing and selling substitute rivet dispensing cassettes to customers.

87. Broetje's conduct was wrongful and unlawful and was intended to interfere with AHG's economic relationships.

88. Broetje's acts constitute intentional interference with prospective economic advantage.

89. As a direct and proximate cause of Broetje's conduct, AHG has suffered lost sales and damages in an amount to be proven at trial.

PRAYER FOR RELIEF

Wherefore AHG prays for entry of Judgment and an Order against Broetje as follows:

A. A judgment that Broetje has infringed, induced others to infringe and/or

1 committed acts of contributory infringement with respect to the claims of the '339
2 Patent and/or the '216 Patent;

3 B. A judgment that Broetje's patent infringement has been, and continues to
4 be, willful and deliberate;

5 C. An order directing Broetje to account for and pay to AHG all damages
6 caused to AHG by reason of Broetje's patent infringement, including increased
7 damages under 35 U.S.C. § 284;

8 D. An order directing Broetje to pay AHG's costs, expenses and reasonable
9 attorneys' fees pursuant to 35 U.S.C. § 285;

10 E. An order permanently enjoining Broetje and its subsidiaries, officers,
11 agents, servants, employees, licensees and all other persons acting or attempting to act
12 in active concert or participation with it or acting on its behalf, from making false
13 representations of fact regarding AHG's products;

14 F. An order permanently enjoining Broetje and its subsidiaries, officers,
15 agents, servants, employees, licensees and all other persons acting or attempting to act
16 in active concert or participation with it or acting on its behalf, from infringing upon
17 AHG's trade dress;

18 G. For damages in an amount to be proven at trial on AHG's claim under the
19 Lanham Act;

20 H. For damages in an amount to be proven at trial on AHG's claim of
21 common law unfair competition;

22 I. For damages in an amount to be proven at trial on AHG's claim of trade
23 dress infringement;

24 J. For punitive damages in an amount to be determined;

25 K. For damages in an amount to be proven at trial on AHG's claim of
26 intentional interference with prospective economic advantage.

27 L. An award of pre-judgment and post-judgment interest on the damages
28 caused to AHG by Broetje;

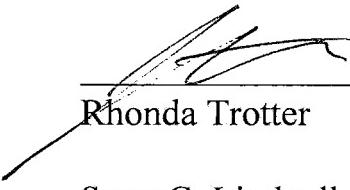
1 M. For attorneys' fees incurred in bringing this suit on AHG's claims under
2 the Lanham Act;

3 N. For the costs incurred by AHG in bringing this suit; and
4 For all other legal and/or equitable relief as the Court deems just and proper.

5 **DEMAND FOR JURY TRIAL**

6 AHG demands trial by jury for all issues so triable pursuant to Fed.R.Civ.P.
7 38(b) and Local Rule 38-1.

8
9 Dated: May 12, 2009

10 
Rhonda Trotter

11 FOR RHONDA TROTTER

12 Scott G. Lindvall
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14 Jonathan Rotter
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16 Attorneys for Plaintiffs

17 Boris M. Herzi
18 Boris M. Herzi, Esq.
19 Attorney for Plaintiffs

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EXHIBIT A

EXHIBIT A

UNITED STATES PATENT NO.
5,011,339

United States Patent [19]

Aurtoi et al.

[11] Patent Number: **5,011,339**[45] Date of Patent: **Apr. 30, 1991**

[54] **PROCESS FOR DISTRIBUTION OF PIECES SUCH AS RIVETS, AND APPARATUS FOR CARRYING OUT THE PROCESS**

[75] Inventors: **Jean-Marc Aurtoi; Philippe Bornes,**
both of Flourens, France

[73] Assignee: **Ste. Ateliers de la Haute-Garonne-ets Auriol et Cie, Balma, France**

[21] Appl. No.: **447,501**

[22] Filed: **Dec. 7, 1989**

[30] **Foreign Application Priority Data**

Dec. 8, 1988 [FR] France 88 16292

[51] Int. Cl. ⁵ B65G 53/016; B65G 51/018

[52] U.S. Cl. 406/191; 406/86;
406/180; 221/278

[58] Field of Search 406/191, 194, 86, 176,
406/180; 221/278, 233

[56] **References Cited**

FOREIGN PATENT DOCUMENTS

3148990 6/1983 Fed. Rep. of Germany 221/278
2067149 7/1981 United Kingdom 221/278

Primary Examiner—Joseph F. Peters, Jr.

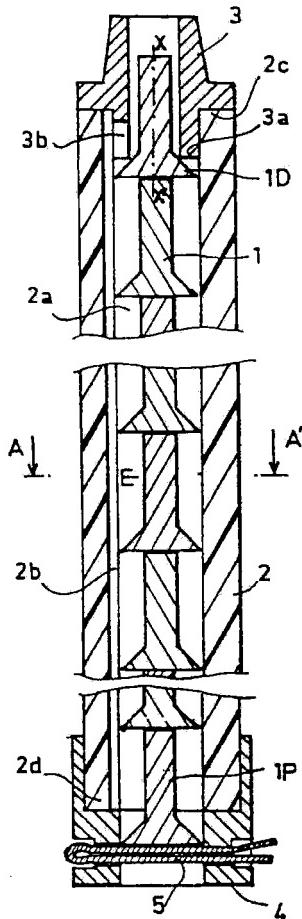
Assistant Examiner—Linda L. Palomar

Attorney, Agent, or Firm—Harold H. Dutton, Jr.

[57] **ABSTRACT**

The invention relates to a process for dispensing identical pieces having a symmetry of revolution about an axis, such as rivets; this process comprises arranging the pieces one after another in a tube (2) which has a hollow center (2a) adapted to assure the guiding thereof, admitting a compressed fluid into the tube behind the last piece (1D), and distributing said fluid along the length of the tube toward the hollow center (2a) thereof, to the interior of one or several longitudinal passageways (2b), such that the fluid pressure is exerted along the hollow center in the spaces (E) separating the pieces, up to the first piece (1P) on which the pressure acts for assuring its transfer. The process of the invention permits dispensing a very great number of pieces without risk of jamming in the tube and with a precise guiding permitting maintaining the alignment of the axes of the pieces.

6 Claims, 5 Drawing Sheets



U.S. Patent

Apr. 30, 1991

Sheet 1 of 5

5,011,339

Fig. 1

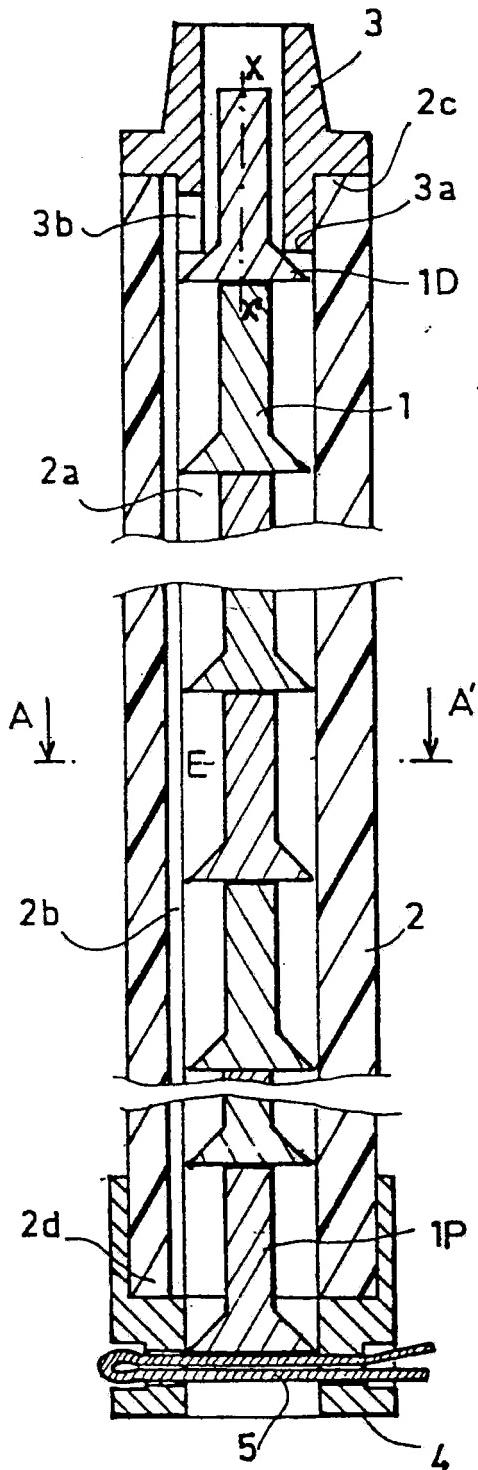


Fig. 2

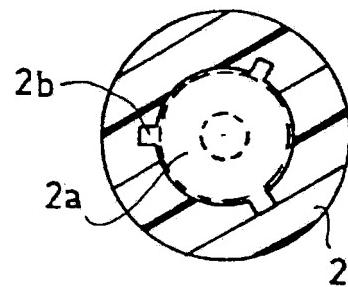


Fig. 3a

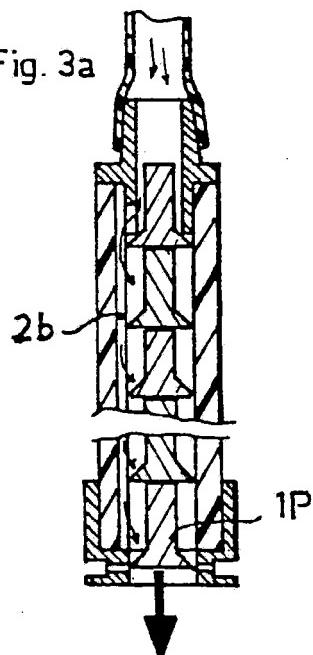


Fig. 3b

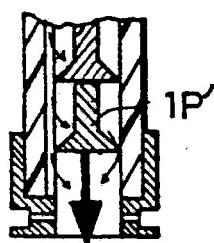


Fig. 3c

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Fig. 4

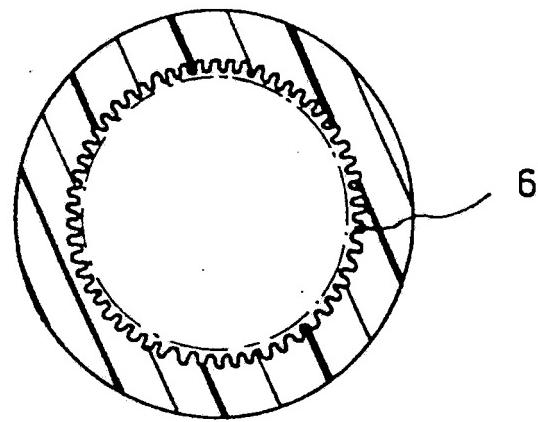
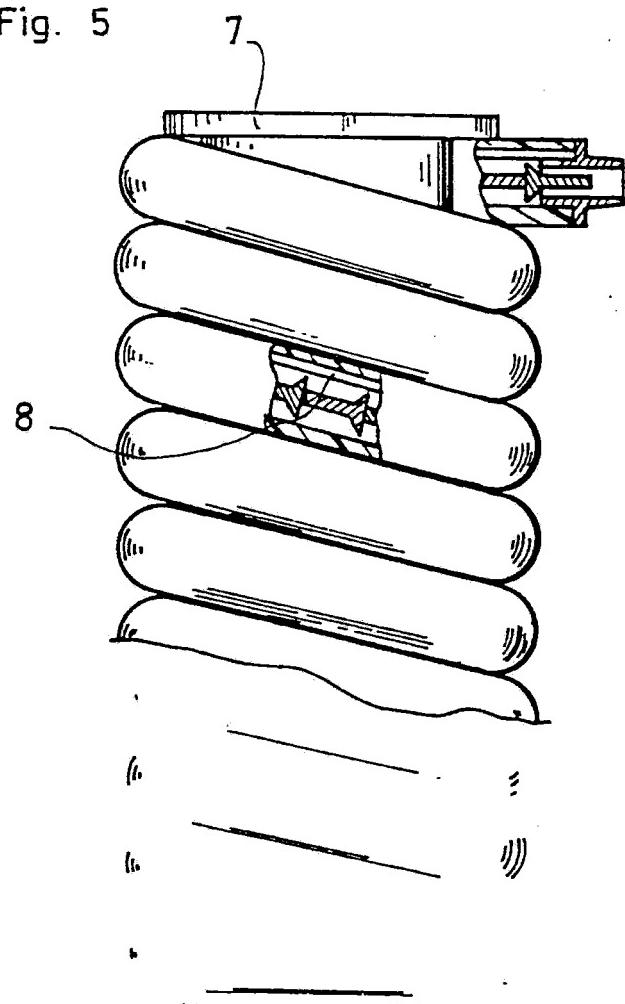


Fig. 5



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Fig. 6

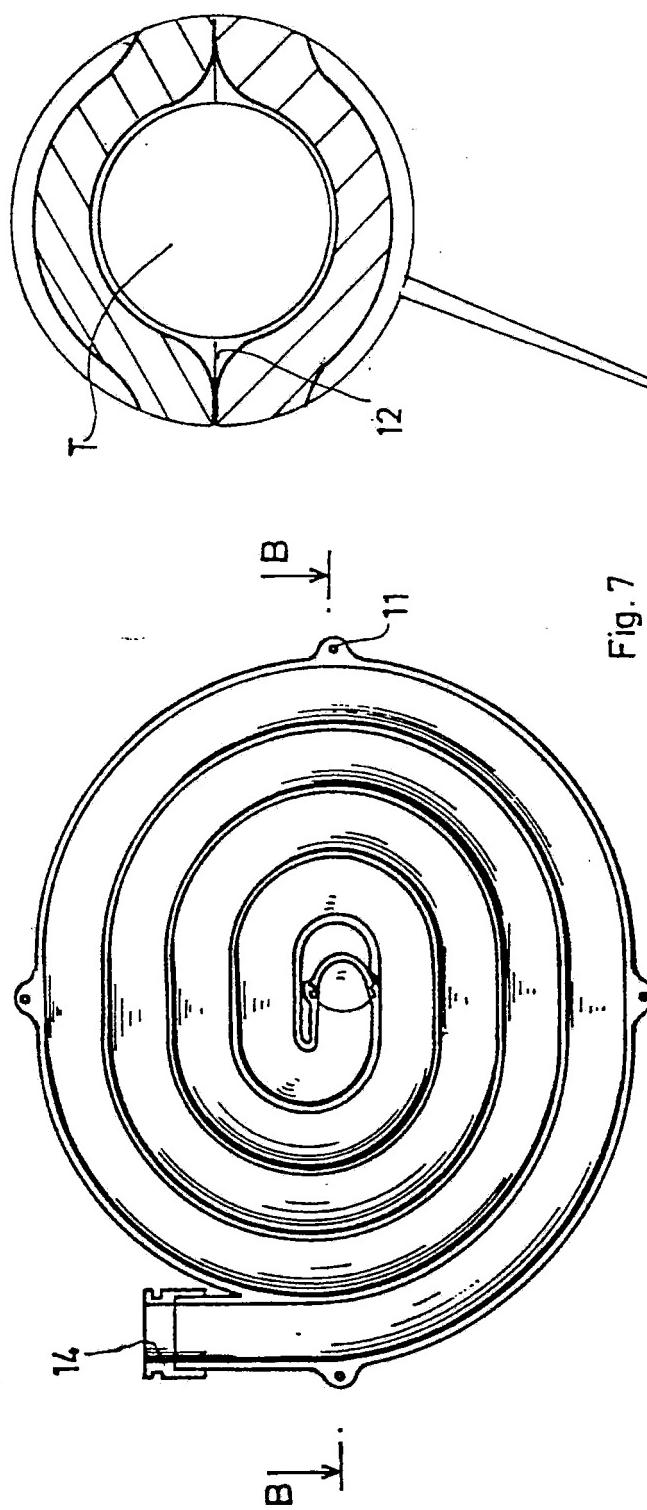
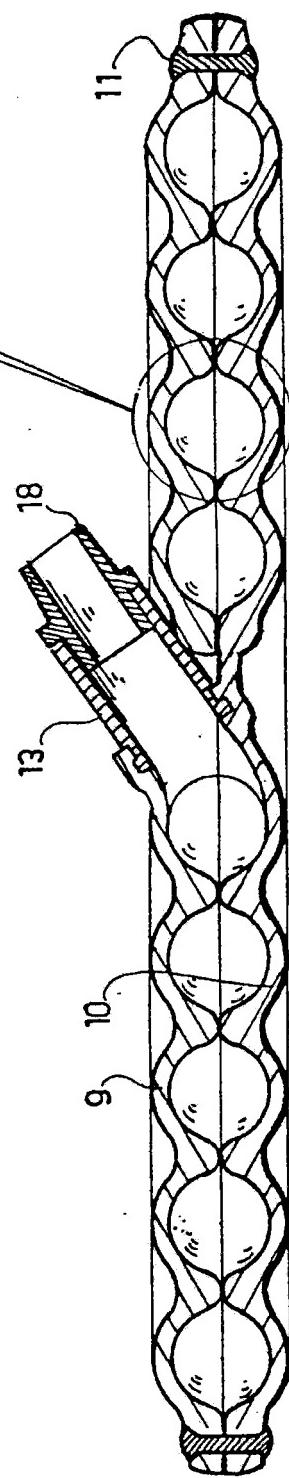


Fig. 7

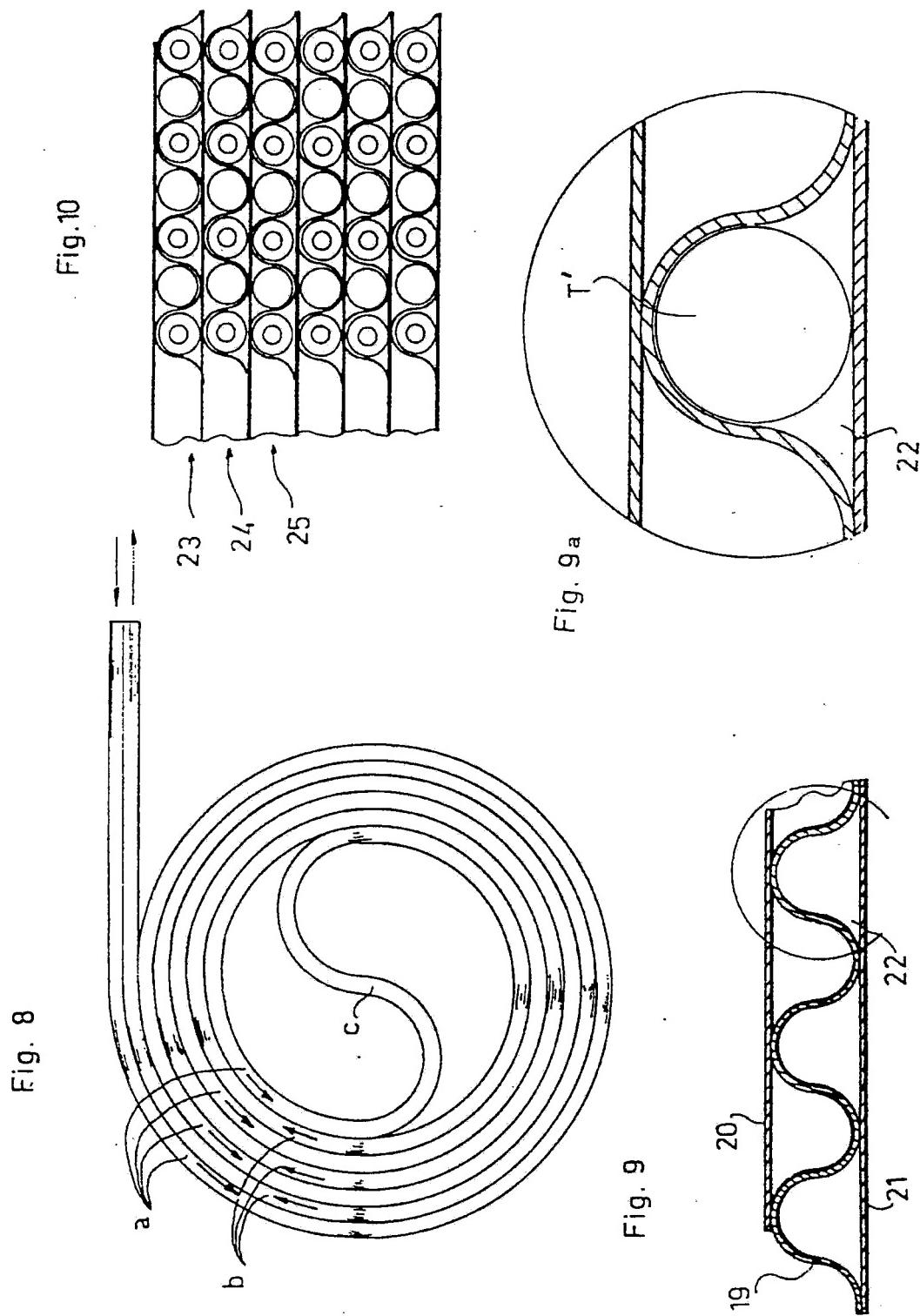


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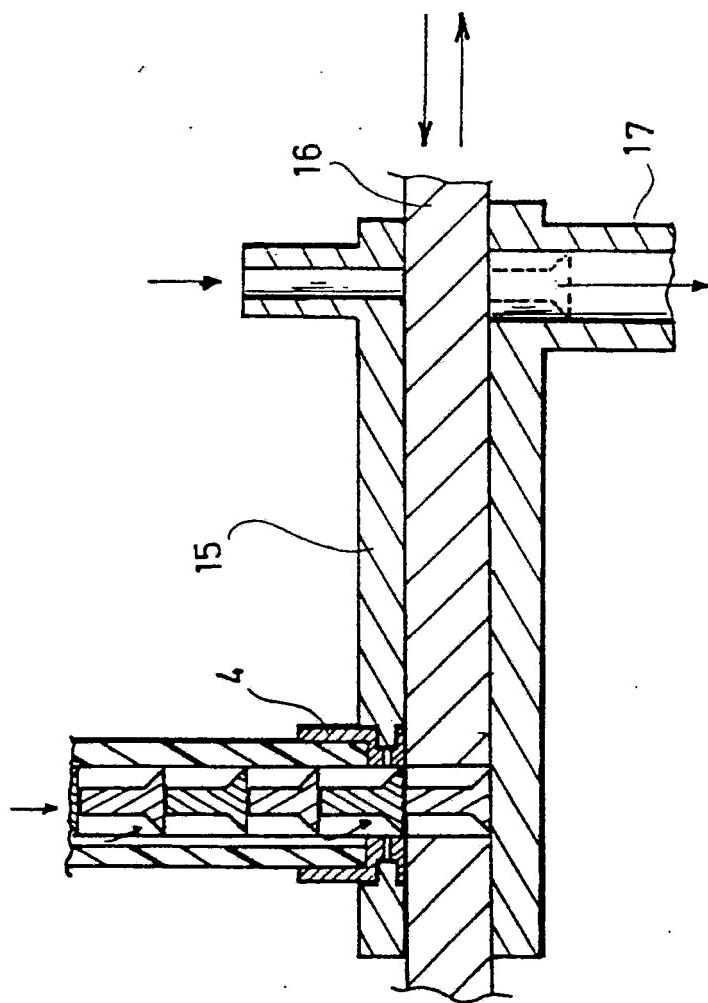
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Fig. 11



PROCESS FOR DISTRIBUTION OF PIECES SUCH AS RIVETS, AND APPARATUS FOR CARRYING OUT THE PROCESS

This invention relates to a process for distribution of identical pieces having a symmetry of revolution about an axis, such as, for example, rivets. The invention provides for distribution of the pieces in such a manner that the pieces are presented with their axes aligned in a given direction in preparation for their utilization (for example, a riveting operation for rivets). The invention also relates to a distribution apparatus and a device for conditioning the pieces having symmetry of revolution, in order to carry out the aforementioned process. The invention is applicable in any event, where identical pieces having a symmetry of revolution are distributed sequentially with their axis in a predefined direction, in particular the distribution of rivets toward a tool or a riveting machine for achieving an automatic riveting.

BACKGROUND AND OBJECTS OF THE INVENTION

It is well known to transfer rivets in tubes with the help of compressed air. The rivets are arranged in a column in the tube which guides them and the compressed air is admitted at one end thereof in order to displace the entire column and thus bring about the expulsion of the rivets, one after another, at the other end of the tube. The essential advantages of such a system reside in the simplicity and in the fact that it permits a distribution of each rivet in a defined position, ready for feeding to an automatic machine.

However, this transfer process only gives satisfactory results if the rivets are in very small numbers in the tube. In effect, when this number increases beyond several units, a blocking of the assembly develops, due to the cumulative effects of mechanical and pneumatic jamming of each rivet in the tube, each rivet functioning as a piston in a cylinder. This phenomenon results regardless of the pneumatic pressure used, because if a rise in the pressure increases the pressure on the column of rivets, it also increases equally the effect of jamming of each rivet, such that a rise in pressure, even substantial, does not permit in practice significantly increasing the number of rivets which may be arranged in the distribution tube. As a result, such a process of distribution is actually useable for transferring rivets to the unit or in a small number from one point to another, but not for permitting distribution of the rivets from a tube in which they will be initially arranged in large numbers. This limitation has practical capital consequences: the actual process is not compatible with a storage of rivets in great numbers in the distribution tube and assumes a feeding from the inlet in proportion to the transfer (the initial distribution means then are provided upstream of the tube). Under these conditions, the process of pneumatic transfer through tubes which is actually known resolves the problem of transporting the rivets from one point to another, (or more generally pieces with a symmetry of revolution about an axis) but not the problem of their storage and sequential distribution at the point of use.

British patent 2,067,149 and German patent 3,148,990 describe a pneumatic distribution process for screws of a particular type ("self-piercing nuts"), but the process is limited to this specific type of piece.

The present invention proposes to remedy the limitations of known processes for distribution of rivets, or more generally, distribution of pieces having a symmetry of revolution about an axis, in order to present each piece with its axis aligned in a given direction.

An essential object of the invention is to permit causing the circulation of a very large number of these types of pieces (theoretically without limit) for bringing them to be presented one by one, with their axis in an appropriate position at the inlet of a tool or a machine where they are to be used, for example a riveting machine in the case of rivets.

Another object is to resolve the problem of storage of said pieces, while permitting the distribution tube to function as the conditioning tube therefor.

Another object associated with the preceding one is to permit an improvement of the homogeneity of the pieces distributed due to a great security of storage (complete absence of manipulation by hand on the stored lot from the storage operation to the piece distribution operation).

DESCRIPTION OF THE INVENTION

To this end, the process provided by the invention for the distribution of identical pieces having a symmetry of revolution about an axis, for example rivets, comprises using a tube having a hollow core of a shape adapted to the transverse cross-section of a greater diameter than the pieces to be able to assure a peripheral guiding of the pieces at the level of this section, arranging the pieces one after another on the interior of the tube with their axes of revolution extending along the longitudinal axis of the tube and feeding said tube with a compressed fluid for assuring the transfer of the pieces toward an open, distribution extremity of said tube. According to the present invention, the compressed fluid is admitted into the tube behind the last piece and is distributed along the length of the tube at the interior of at least one longitudinal passageway provided on the internal surface of said tube for opening into the hollow core thereof, such that the fluid pressure is exerted all along the hollow core in the spaces separating said pieces, up to the first piece on which the pressure acts for assuring the transfer toward the distribution extremity.

By the term "longitudinal passageway" is meant any hollow shape, regardless of the cross-sectional shape, extending along the wall of the tube, this passageway being able to be linear, helical, etc.

The known pneumatic transfer process for rivets comprises exerting a pneumatic pressure on the last piece of the stack (that is the one piece which is situated the farthest upstream, at the tube inlet), this pressure being mechanically transmitted from point to point from the upstream or inlet end downstream toward the first piece (situated downstream, at the distribution end) with respect to the pieces, one against the other. By contrast, in the process of the invention, the pressure is distributed to the interior of the one or more passageways along the tube such that the intermediate pieces are under equal pressure, just as their cross-section of greatest diameter, guided by the tube, works as a piston which, in the absence of the passageway, would oppose the equal pressure. Thus there is achieved a precise guiding of the pieces permitting keeping their axes in alignment in the tube, while avoiding the intermediate pieces being subjected to forces causing jamming, the pressure coming to be exerted directly on the first piece which is situated opposite the open distribution extrem-

ity. This first piece is displaced toward the distributing end until expelled from the tube with its axis in alignment therewith, so that one by one, while moving from the upstream to the downstream direction, the pieces are displaced under the effect of the transitory pressure differences to which they are successively subjected after displacement of the first piece. The transfer and expulsion are thus produced directly by the compressed fluid (and not by the mechanical forces), and the cumulative effects of jamming, as in conventional processes, are completely eliminated. Under these conditions, the number of pieces stackable in the tube is without limit.

Because of the significant capacity which the tube may have, it is possible to preliminarily condition or orient the pieces in the tube with stop members which will be placed at its extremities, immediately after the conditioning operation. Such a process assures that a foreign piece will not be mixed in the thus stored assemblage. Before assuring the distribution, it will suffice to withdraw the stop member situated at the distribution end and to direct the pressurized fluid to the other end.

The process of the invention is particularly applicable for achieving the storage and distribution of selected rivets in a predetermined range of tolerances. Such a process may carry considerable advantages in the riveting field. In effect, the fabrication of rivets being assured in a conventional manner with usual tolerances, it is possible by a preliminary selection to separate these rivets into several lots, each corresponding to a range of tolerances much narrower than those of the initial assembly (Gaussian curves with a narrow base); after selection, each lot is conditioned according to the invention in order to assure that no foreign element will be mixed with the lot. At the place of distribution, the storage tube is directly branched to the riveting machine, which is initially adapted to the rivets concerned (diameter of the boring tool, backing plate, etc.) Thus, a much higher quality of riveting is obtained than that obtained with conventional tolerances (second head of invariable volume, axial constraints on the most precise sheets of metal, preformed head cooperating in a more precise manner with the backup plates, etc.) and in particular, disadvantageous stoppages as heretofore produced by jamming of the rivets, due to poor homogeneity, are suppressed on the riveting machine.

The invention also relates to a distribution apparatus for identical pieces, comprising a tube with a hollow core, characterized in that at least one longitudinal passageway is provided on the internal surface of said tube in such a manner as to open into the hollow core along the length thereof.

The invention relates as well to such an apparatus making use of means for conditioning the pieces and comprises stop members situated at the extremities of the tube for retaining the pieces.

DESCRIPTION OF THE DRAWINGS

Other characteristics, objects and advantages of the invention will become apparent from the description which follows in reference to the accompanying drawings, which show by way of non-limiting examples, various embodiments thereof. In these drawings:

FIG. 1 is an axial cross-sectional view, on an enlarged scale, of an apparatus for conditioning and distributing rivets according to the invention;

FIG. 2 is a transverse sectional view along lines AA' of FIG. 1 and viewed in the direction of the arrows;

FIGS. 3a, 3b and 3c are partial cross-sectional schematic views showing the distribution process carried out by means of said apparatus;

FIG. 4 is a transverse sectional view of another embodiment;

FIG. 5 is a schematic assembly view, with portions broken away for clarity, of a conditioning apparatus arranged in the shape of a coil;

FIGS. 6 and 7 show another embodiment, respectively in plan view and in cross-section along lines BB of FIG. 6;

FIGS. 8 and 9 show another embodiment, respectively in plan and in partial cross-section;

FIG. 10 shows, in partial cross section, an embodiment with several superimposed tubes;

FIG. 11 is a schematic view of an apparatus according to the invention, mounted on the head of a machine for working on the distributed pieces.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

The apparatus shown by way of example in FIGS. 1 and 2 is intended to permit the orienting or conditioning and distribution of a large number of identical pieces having a symmetry of revolution about an axis XX', such as rivets 1.

This apparatus comprises a cylindrical tube 2 having a hollow central core 2a of a cylindrical form, the diameter of which corresponds to that of the largest cross-section of the rivets to be distributed (the head of the rivet) in such a manner as to contain the rivets and to guide them on their periphery with a play of several tenths of a millimeter at the level of this greatest section. The tube 1 may be rigid, semi-rigid or flexible. According to the needs of the particular application, it may be provided rectilinearly or of a different shape (notably rolled up in a coil as will be seen below in order to reduce the bulk of the assembly).

The length of this tube is adapted to the number of pieces to be conditioned. This number may be very high, and tests have been carried out with tubes of a length of 33 m, containing 3300 rivets, without leading to any difficulty in the transfer or distribution.

On the internal surface of the tube 2 are arranged three passageways such as 2b, angularly arranged at 120°, and which extend along the length of the tube. Each of these passageways opens into the hollow center 2a of the tube along the length thereof.

At one end of the tube (inlet 2c), is secured, particularly by bonding, a stop member comprising a connecting ferrule 3 leading to a compressed air conduit. This member forms in the hollow center a stop shoulder 3a of the last rivet 1D and is shaped to permit the passage of compressed air (baffles 3b at right angles with the passageways).

At the other end of the tube (distribution end 2d) is secured, as by bonding, a ferrule 4 which carries a removable cotter pin 5 retaining the first rivet 1P of the stack. This ferrule 4 is shaped to be able to cooperate with a tool or a riveting machine of a given type.

The rivets are conditioned and oriented in the described apparatus immediately after a sorting operation which permits selecting the rivets in a predetermined range of tolerances (narrower than in the case of the conditioning in bulk as currently used, in which the tolerances are those of the standard of production). The conditioning apparatus according to the invention is only opened by withdrawal of the cotter pin 5 at the

moment of mounting it on the riveting machine, such that no foreign piece may accidentally be mixed in the lot. The characteristics of the lot concerned will be indicated on the tube. It will be understood that to avoid inlet of powder into the tube, the ferrules 3 and 4 may be closed by any appropriate means (removable plug, removable film wrapping the assembly, . . .). When put into place, the rivets are arranged one after another with their axes extending along the axis of the tube.

The distribution of the rivets from the apparatus described above will be carried out by withdrawing the cotter pin 5 and by connecting the connecting ferrule 3 to a source of compressed air (FIG. 3a). The compressed air pressure is exerted on the last rivet 1D, but when the number of rivets exceeds about ten or twenty, the effects of jamming on the column prevent any displacement thereof. In the invention, the compressed air is distributed by the grooves 2b along the length of the tube and the pressure is established in the separating spaces E between the rivets. Under these conditions, the column is no longer subject to a thrusting action leading to jamming, and the fluid exerts its action directly on the first rivet 1P. This rivet is forced toward the end 2d through which it is dispensed. In the example shown, the grooves 2b are closed at the distribution end 2d for emptying solely into the hollow core at the rear of the first piece 1P. However, one or several grooves 2b may empty freely to the exterior at the distribution end without being harmful to the operation. Because of the presence of the head of the rivets, the pneumatic action on the first piece is then accentuated by an aspiration effect.

After discharge of the rivet 1P, the following rivet 1P' (FIG. 3b) becomes the first in the column and is subjected itself to the pressure of the fluid (in addition to the aspiration effect mentioned). This rivet is displaced toward the distribution end through which it is dispensed.

It is convenient to note that when a rivet is displaced in the column (FIG. 3c), it creates a depression in the space E which separates it from the following rivet, such that the latter is subjected to a pneumatic force tending to cause it to advance in the tube. The column is then shifted progressively toward the dispensing end in proportion to the dispensing of rivets situated opposite this end, and this, with a precise guiding of each rivet at its head.

This distribution process permits arranging a very great number of rivets in the tube, since the transfer and dispensing, which are caused by a direct pneumatic effect on the first rivet, are independent of the number of rivets situated upstream thereof.

The longitudinal grooves or passageways which permit the air pressure to be established all along the length of the tube may be of any cross-section and produced by any process (molding, extrusion, machining, etc). They may be linear (that is, parallel to the axis of the tube) or they may be helical or any other shape. (By "longitudinal groove or passageway" is meant a passageway extending in the direction of the length of the tube.)

By way of example, FIG. 4 shows in cross-section another type of tube in which the grooves are formed by a plurality of grooves which are arranged on the internal face of the tube around its hollow center.

FIG. 5 shows an apparatus for orientation and distribution of the type described previously, produced by means of a flexible tube which is rolled about a form of

a bobbin around a cylindrical support 7. It is understood that the radius of curvature of the coils is provided sufficiently great with respect to the diameter of the tube to permit a sliding of the rivets without difficulty. The grooves 8 for the pressure distribution along the tube are analogous to those heretofore described.

FIGS. 6 and 7 show another embodiment in which the guide tube for the rivets is rolled in helical form on a form of a disk and is formed by two half-shells 9 and 10 which are fastened one to the other, for example by means of rivets 11. Each half-shell is molded to form a half of the section of the tube. The grooves for distributing the pressure are formed by the passages 12 coming from the mold, situated at the level of the joints between the half-shells. In the detail view of FIG. 7, a head of a rivet T guided on its periphery in the tube of the apparatus is shown, with the grooves 12 for establishing the pressure along the length of the tube. The inlet to the tube, which is caused to be connected to the compressed air source, may be formed by connecting pieces 13 and 18, the piece 13 being inserted between the two shells at the moment of their joining. The dispensing end may be provided as before with a bonded ferrule 14.

FIGS. 8 and 9 show another embodiment in which the guide tube for the rivets is rolled in a double helix, advancing -a- and return -b-, with a central connection -c- between the advance and return. The tube is shown in the form of a disk formed with an undulating wall 19 and two plates 20 and 21 secured on opposite sides of the wall, for example by bonding to the peaks of the undulations. The pressure distributing grooves 22 are situated at the level of the joints between the corrugated wall and the plates. In the detail of FIG. 9, a head of a rivet T is shown, guided on its periphery with the grooves 22 for establishing the pressure along the tube.

FIG. 10 shows an apparatus with several tubes in the form of superimposed disks of the preceding type 23, 24, 25 . . . Such an apparatus permits orienting and distributing a very large number of rivets, with reduced bulk.

Further, by way of illustration, FIG. 11 shows the dispensing end of an apparatus according to the invention, associated with a head of a riveter which receives a distribution of rivets, one by one, toward the riveting means. In the example, the ferrule 4 of the device is fixed on a plate 15 of the riveter and a movable slide 16 receives each rivet at the outlet of the dispensing tube for transferring it to a tube 17 for feeding a riveting means.

While this invention has been described as having certain preferred features and embodiments, it will be understood that it is capable of still further variation and modification without departing from the spirit of the invention, and this application is intended to cover any and all variations, modifications and adaptations which fall within the spirit of the invention and the scope of the appended claims.

What is claimed is:

1. A process for dispensing identical pieces having a symmetry of revolution about an axis, comprising: providing a tube (2) having a hollow center (2a) and a shape corresponding to the transverse section of the greatest diameter of the pieces for assuring a peripheral guiding of said pieces at the level of this section, arranging the pieces one after another in the interior of the tube (2) with their axes of revolution extending along the longitudinal axis of said tube and feeding one end of said tube with a compressed fluid for assuring the trans-

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fer of the pieces toward an open dispensing end (2d) of said tube, admitting the compressed fluid into the one end of the tube behind the piece closest to said one end of the tube and distributing the fluid along the length of the tube through at least one longitudinal passageway (2b) on the internal surface of said tube and opening into the hollow center (2a) thereof for exerting the pressure of the fluid along the hollow center in the spaces (E) between the pieces, to the piece (1P) closest to the dispensing end on which said pressure acts for assuring the transfer toward the dispensing end (2d).

2. A process as in claim 1, and including distributing the compressed fluid along the interior of a plurality of linear grooves (2b) arranged about the hollow center (2a).

3. A process as in claim 1, and including admitting the compressed fluid into the hollow center through said

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one end of the tube by means of one or more grooves opening freely to the exterior of the dispensing end.

4. A process as in claim 3, and including admitting the compressed fluid into the hollow center of the tube through said one end of the tube (2d), and wherein at least one of said grooves (2b) is closed at the dispensing end for emptying only into the hollow center behind the piece closest to the dispensing end.

5. A process as in claim 1, for dispensing rivets and including sorting the rivets by size according to a predetermined range of tolerances.

6. A process as in claim 1 and including preliminarily orienting the pieces (1) in the tube (2) with stop members (3, 4) provided at the ends of the tube, and with drawing the stop member (4) situated at the dispensing end for assuring the dispensing.

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EXHIBIT B

EXHIBIT B

UNITED STATES PATENT NO.
5,143,216



US005143216A

United States Patent [19]

Aurtoi et al.

[11] Patent Number: **5,143,216**
 [45] Date of Patent: **Sep. 1, 1992**

[54] **PROCESS FOR DISTRIBUTION OF PIECES SUCH AS RIVETS, AND APPARATUS FOR CARRYING OUT THE PROCESS**

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 both of Flourens, France

[73] Assignee: **Ste. Ateliers de la Haute Garonne-ets Auriol et Cie., France**

[21] Appl. No.: **589,685**

[22] Filed: **Sep. 28, 1990**

Related U.S. Application Data

[62] Division of Ser. No. 447,501, Dec. 7, 1989.

Foreign Application Priority Data

Dec. 8, 1988 [FR] France 88 16292

[51] Int. Cl.⁵ **B65D 85/24; B65G 59/00;**
B65H 3/08; B23Q 7/10

[52] U.S. Cl. **206/338; 206/303;**
221/278; 29/818

[58] Field of Search **206/338, 348, 303, 347;**
221/278, 66; 29/818

References Cited**U.S. PATENT DOCUMENTS**

3,115,290 12/1963 Byassee 206/328
 3,598,820 7/1986 Murphy 206/591
 4,359,157 11/1982 Horstmann 206/499

FOREIGN PATENT DOCUMENTS

3148990	6/1983	Fed. Rep. of Germany	221/278
1307052	2/1973	United Kingdom	206/526
2067149	7/1981	United Kingdom	

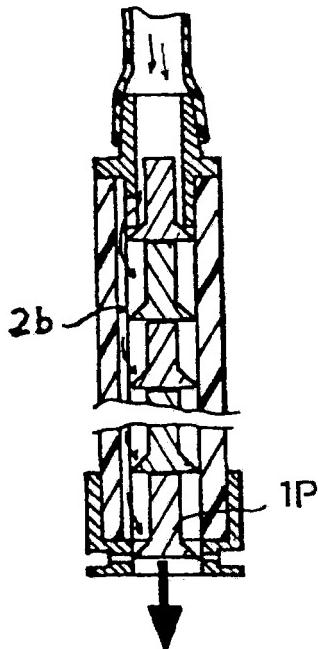
Primary Examiner—Paul T. Sewell
 Assistant Examiner—M. D. Patterson
 Attorney, Agent, or Firm—Harold H. Dutton, Jr.

[57]

ABSTRACT

The invention relates to a process for dispensing identical pieces having a symmetry of revolution about an axis, such as rivets; this process comprises arranging the pieces one after another in a tube (2) which has a hollow center (2a) adapted to assure the guiding thereof, admitting a compressed fluid into the tube behind the last piece (1D), and distributing said fluid along the length of the tube toward the hollow center (2a) thereof, to the interior of one or several longitudinal passageways (2b), such that the fluid pressure is exerted along the hollow center in the spaces (E) separating the pieces, up to the first piece (1P) on which the pressure acts for assuring its transfer. The process of the invention permits dispensing a very great number of pieces without risk of jamming in the tube and with a precise guiding permitting maintaining the alignment of the axes of the pieces.

6 Claims, 5 Drawing Sheets



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Fig. 1

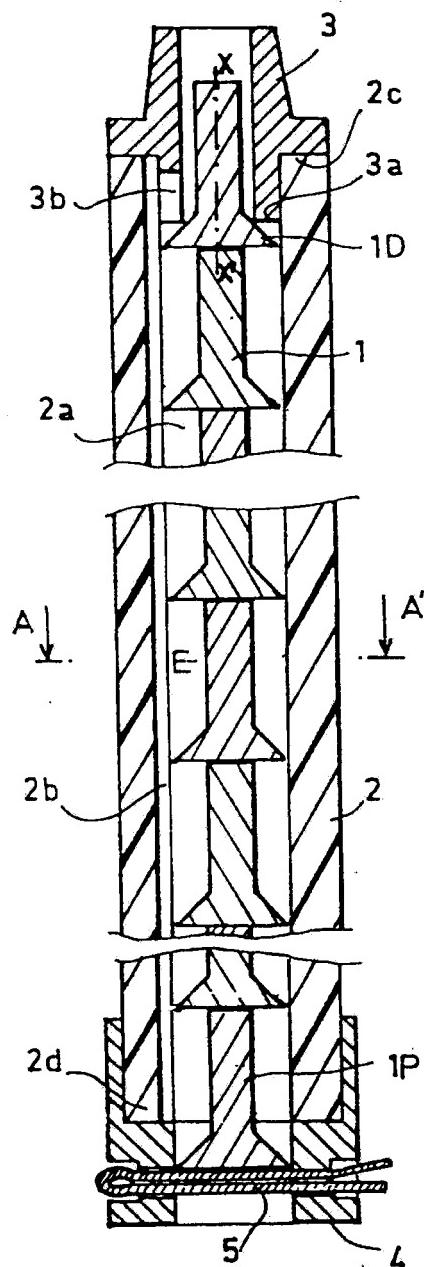


Fig. 2

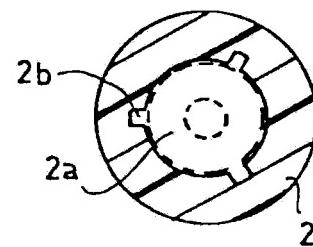


Fig. 3a

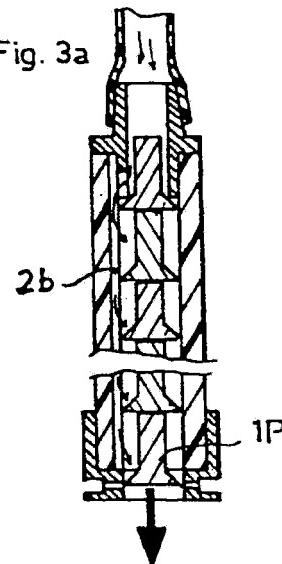


Fig. 3b

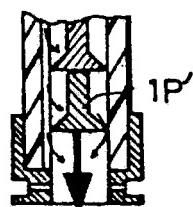
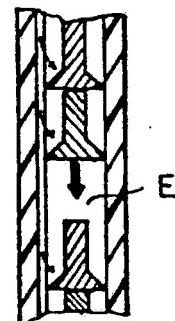


Fig. 3c



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Fig. 4

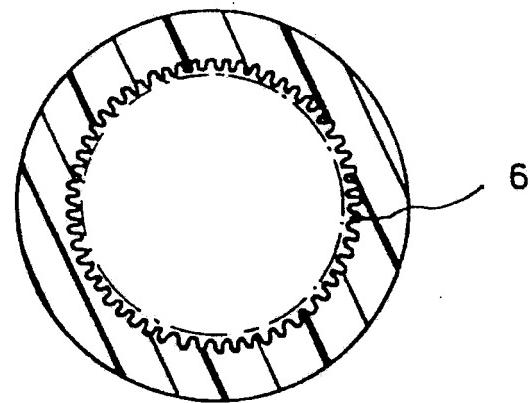
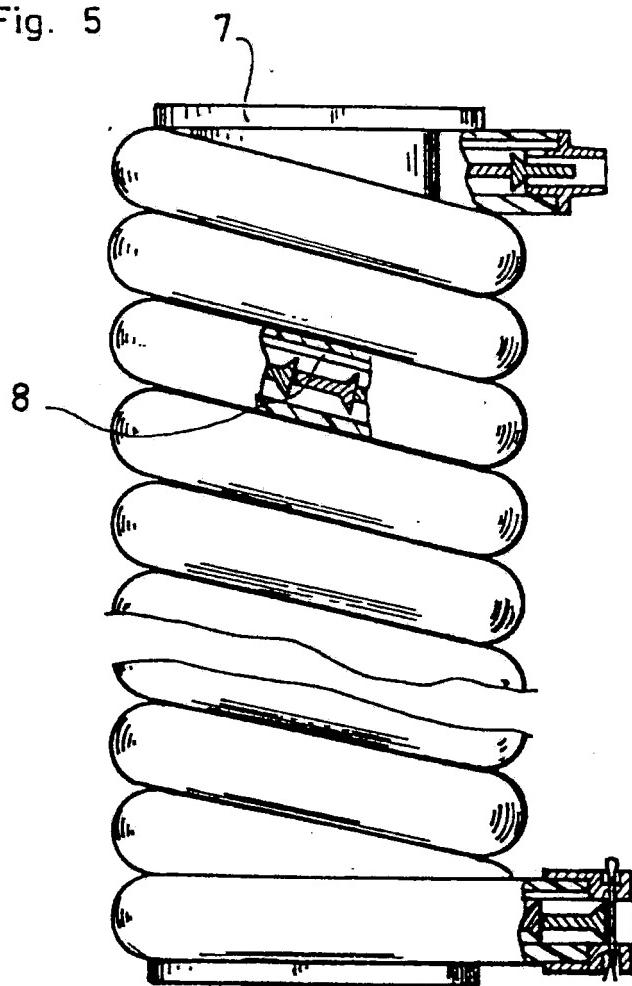


Fig. 5

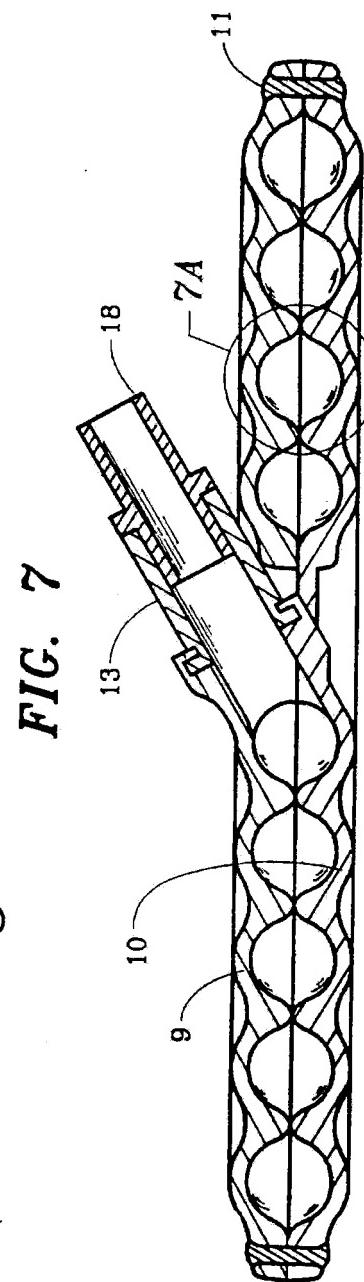
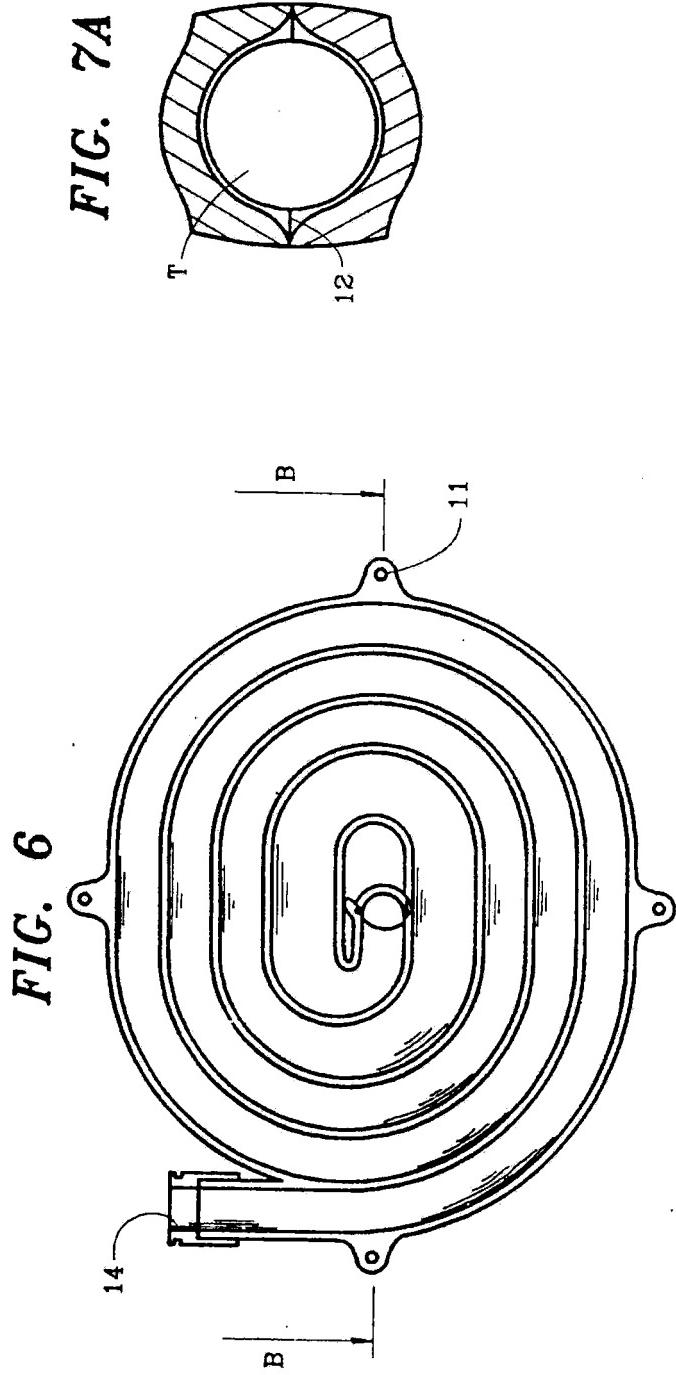


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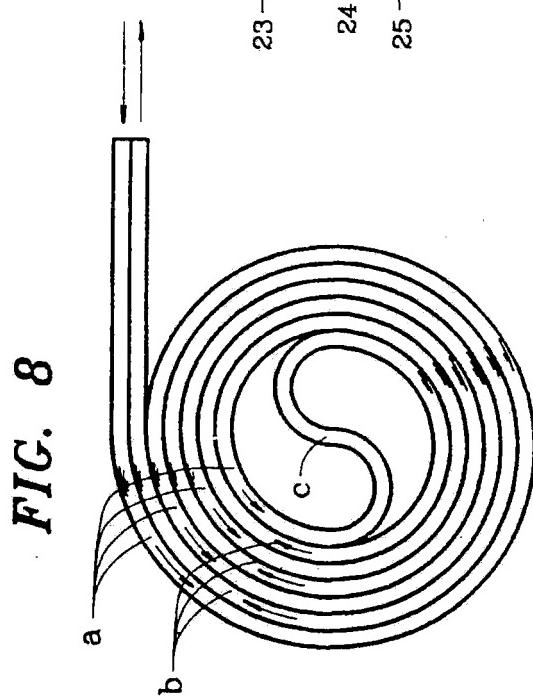
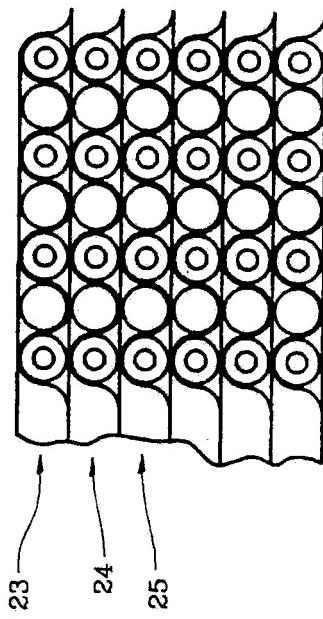
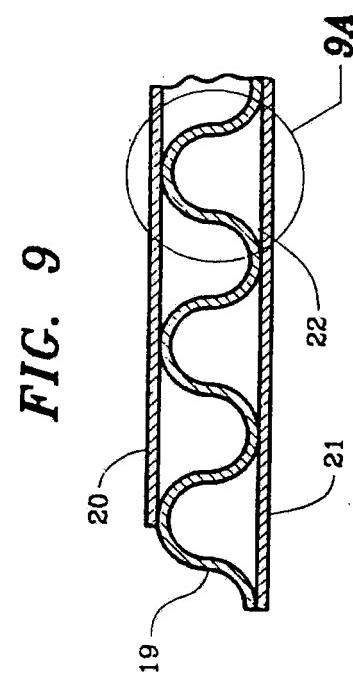
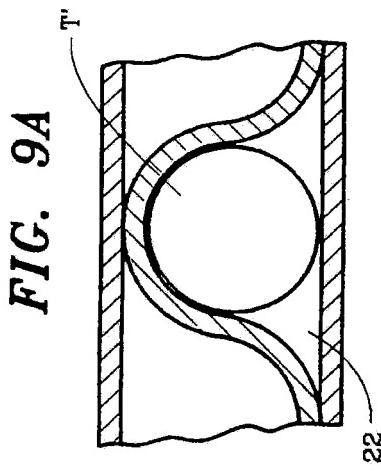


FIG. 10



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24
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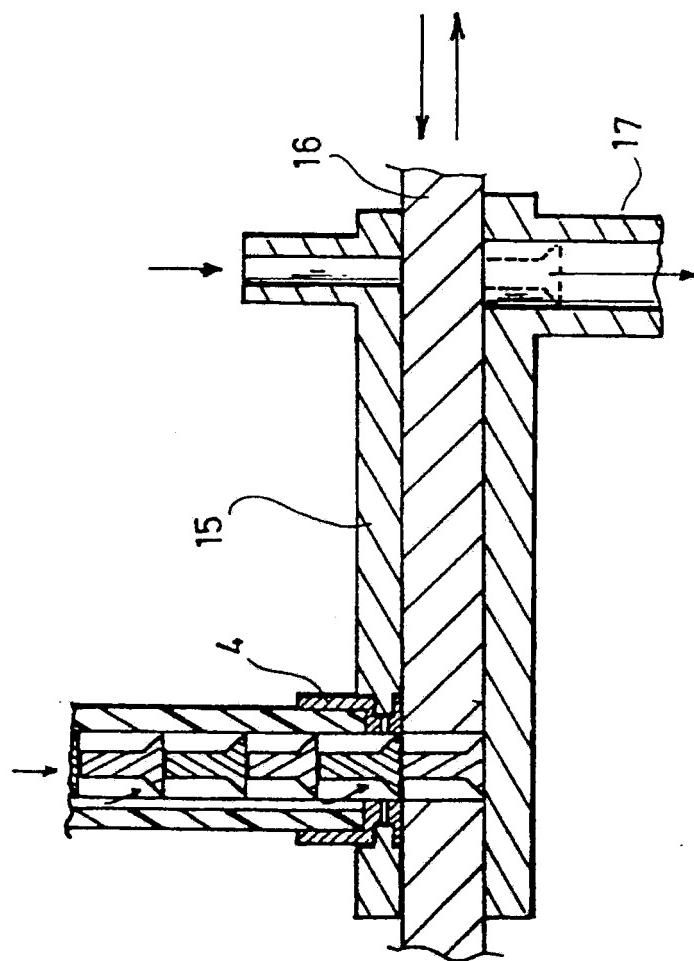
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Fig. 11



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PROCESS FOR DISTRIBUTION OF PIECES SUCH AS RIVETS, AND APPARATUS FOR CARRYING OUT THE PROCESS

This is a division of application Ser. No. 07/447,501, filed Dec. 7, 1989.

This invention relates to a process for distribution of identical pieces having a symmetry of revolution about an axis, such as, for example, rivets. The invention provides for distribution of the pieces in such a manner that the pieces are presented with their axes aligned in a given direction in preparation for their utilization (for example, a riveting operation for rivets). The invention also relates to a distribution apparatus and a device for conditioning the pieces having symmetry of revolution, in order to carry out the aforementioned process. The invention is applicable in any event, where identical pieces having a symmetry of revolution are distributed sequentially with their axis in a predefined direction, in particular the distribution of rivets toward a tool or a riveting machine for achieving an automatic riveting.

BACKGROUND AND OBJECTS OF THE INVENTION

It is well known to transfer rivets in tubes with the help of compressed air. The rivets are arranged in a column in the tube which guides them and the compressed air is admitted at one end thereof in order to displace the entire column and thus bring about the expulsion of the rivets, one after another, at the other end of the tube. The essential advantages of such a system reside in the simplicity and in the fact that it permits a distribution of each rivet in a defined position, ready for feeding to an automatic machine.

However, this transfer process only gives satisfactory results if the rivets are in very small numbers in the tube. In effect, when this number increases beyond several units, a blocking of the assembly develops, due to the cumulative effects of mechanical and pneumatic jamming of each rivet in the tube, each rivet functioning as a piston in a cylinder. This phenomenon results regardless of the pneumatic pressure used, because any rise in the pressure increases the pressure on the column of rivets, it also increases equally the effect of jamming of each rivet, such that a rise in pressure, even substantial, does not permit in practice significantly increasing the number of rivets which may be arranged in the distribution tube. As a result, such a process of distribution is actually useable for transferring rivets to the unit or in a small number from one point to another, but not for permitting distribution of the rivets from a tube in which they will be initially arranged in large numbers. This limitation has practical capital consequences: the actual process is not compatible with a storage of rivets in great numbers in the distribution tube and assumes a feeding from the inlet in proportion to the transfer (the initial distribution means then are provided upstream of the tube). Under these conditions, the process of pneumatic transfer through tubes which is actually known resolves the problem of transporting the rivets from one point to another, (or more generally pieces with a symmetry of revolution about an axis) but not the problem of their storage and sequential distribution at the point of use.

British patent 2,067,149 and German patent 3,148,990 describe a pneumatic distribution process for screws of

a particular type ("self-piercing nuts"), but the process is limited to this specific type of piece.

The present invention proposes to remedy the limitations of known processes for distribution of rivets, or more generally, distribution of pieces having a symmetry of revolution about an axis, in order to present each piece with its axis aligned in a given direction.

An essential object of the invention is to permit causing the circulation of a very large number of these types of pieces (theoretically without limit) for bringing them to be presented one by one, with their axis in an appropriate position at the inlet of a tool or a machine where they are to be used, for example a riveting machine in the case of rivets.

15 Another object is to resolve the problem of storage of said pieces, while permitting the distribution tube to function as the conditioning tube therefor.

Another object associated with the preceding one is to permit an improvement of the homogeneity of the 20 pieces distributed due to a great security of storage (complete absence of manipulation by hand on the stored lot from the storage operation to the piece distribution operation).

DESCRIPTION OF THE INVENTION

To this end, the process provided by the invention for the distribution of identical pieces having a symmetry of revolution about an axis, for example rivets, comprises using a tube having a hollow core of a shape adapted to 30 the transverse cross-section of a greater diameter than the pieces to be able to assure a peripheral guiding of the pieces at the level of this section, arranging the pieces one after another on the interior of the tube with their axes of revolution extending along the longitudinal axis 35 of the tube and feeding said tube with a compressed fluid for assuring the transfer of the pieces toward an open, distribution extremity of said tube. According to the present invention, the compressed fluid is admitted into the tube behind the last piece and is distributed 40 along the length of the tube at the interior of at least one longitudinal passageway provided on the internal surface of said tube for opening into the hollow core thereof, such that the fluid pressure is exerted all along the hollow core in the spaces separating said pieces, up 45 to the first piece on which the pressure acts for assuring the transfer toward the distribution extremity.

By the term "longitudinal passageway" is meant any hollow shape, regardless of the cross-sectional shape, extending along the wall of the tube, this passageway 50 being able to be linear, helical, etc.

The known pneumatic transfer process for rivets comprises exerting a pneumatic pressure on the last piece of the stack (that is the piece which is situated the farthest upstream, at the tube inlet), this pressure being mechanically transmitted from point to point from the upstream or inlet end downstream toward the first piece (situated downstream, at the distribution end) with respect to the pieces, one against the other. By contrast, in the process of the invention, the pressure is 55 distributed to the interior of the one or more passageways along the tube such that the intermediate pieces are under equal pressure, just as their cross-section of greatest diameter, guided by the tube, works as a piston which, in the absence of the passageway, would oppose the equal pressure. Thus there is achieved a precise 60 guiding of the pieces permitting keeping their axis in alignment in the tube, while avoiding the intermediate pieces being subjected to forces causing jamming, the 65

pressure coming to be exerted directly on the first piece which is situated opposite the open distribution extremity. This first piece is displaced toward the distributing end until expelled from the tube with its axis in alignment therewith, while one by one, but while moving in the upstream to the downstream direction, the pieces are displaced under the effect of the transitory pressure differences to which they are successively subjected after displacement of the first piece. The transfer and expulsion are thus produced directly by the compressed fluid (and not by the mechanical forces), and the cumulative effects of jamming, as in conventional processes, are completely eliminated. Under these conditions, the number of pieces stackable in the tube is without limit.

Because of the significant capacity which the tube may have, it is possible to preliminarily condition or orient the pieces in the tube with stop members which will be placed at its extremities, immediately after the conditioning operation. Such a process assures that a foreign piece will not be mixed in the thus stored assemblage. Before assuring the distribution, it will suffice to withdraw the stop member situated at the distribution end and to direct the pressurized fluid to the other end.

The process of the invention is particularly applicable for achieving the storage and distribution of selected rivets in a predetermined range of tolerances. Such a process may carry considerable advantages in the riveting field. In effect, the fabrication of rivets being assured in a conventional manner with usual tolerances, it is possible by a preliminary selection to separate these rivets into several lots, each corresponding to a range of tolerances much narrower than those of the initial assembly (Gaussian curves with a narrow base): after selection, each lot is conditioned according to the invention in order to assure that no foreign element will be mixed with the lot. At the place of distribution, the storage tube is directly branched to the riveting machine, which is initially adapted to the rivets concerned (diameter of the boring tool, backing plate, etc.) Thus, a much higher quality of riveting to that obtained with conventional tolerances (second head of invariable volume, axial constraints on the most precise sheets of metal, preformed head cooperating in a more precise manner with the backup plates, etc.) and particularly 45 disadvantageous stoppages actually produced are suppressed on the riveting machine by jams or the rivets, caused by a poor homogeneity thereof.

The invention also relates to a distribution apparatus for identical pieces, comprising a tube with a hollow core, characterized in that at least one longitudinal passageway is provided on the internal surface of said tube in such a manner as to open into the hollow core along the length thereof.

The invention relates as well to such an apparatus 55 making use of means for conditioning the pieces and comprises stop members situated at the extremities of the tube for retaining the pieces.

DESCRIPTION OF THE DRAWINGS

Other characteristics, objects and advantages of the invention will become apparent from the description which follows in reference to the accompanying drawings, which show by way of non-limiting examples, various embodiments thereof. In these drawings:

FIG. 1 is an axial cross-sectional view, on an enlarged scale, of an apparatus for conditioning and distributing rivets according to the invention;

FIG. 2 is a transverse sectional view along lines AA' of FIG. 1 and viewed in the direction of the arrows;

FIGS. 3a, 3b and 3c are partial cross-sectional schematic views showing the distribution process carried out by means of said apparatus;

FIG. 4 is a transverse sectional view of another embodiment;

FIG. 5 is a schematic assembly view, with portions broken away for clarity, of a conditioning apparatus 10 arranged in the shape of a coil;

FIGS. 6 and 7 show another embodiment, respectively in plan view and in cross-section along lines BB' of FIG. 6;

FIG. 7A is an enlarged view of portion 7A in FIG. 7.

FIGS. 8 and 9 show another embodiment, respectively in plan and in partial cross-section;

FIG. 9A is an enlarged view of portion 9A in FIG. 9.

FIG. 10 shows, in partial cross section, an embodiment with several superimposed tubes;

FIG. 11 is a schematic view of an apparatus according to the invention, mounted on the head of a machine for working on the distributed pieces.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

The apparatus shown by way of example in FIGS. 1 and 2 is intended to permit the orienting or conditioning and distribution of a large number of identical pieces having a symmetry of revolution about an axis XX', such as rivets 1.

This apparatus comprises a cylindrical tube 2 having a hollow central core 2a of a cylindrical form, the diameter of which is adapted to that of the largest cross-section of the rivets to be distributed (the head of the rivet) in such a manner as to contain the rivets and to guide them on their periphery with a play of several tenths of a millimeter at the level of this greatest section. The tube 1 may be rigid, semi-rigid or flexible. According to the needs of the particular application, it may be provided rectilinearly or of a different shape (notably rolled up in a coil as will be seen below in order to reduce the bulk of the assembly).

The length of this tube is adapted to the number of pieces to be conditioned. This number may be very high, and tests have been carried out with tubes of a length of 33 m, containing 3300 rivets, without leading to any difficulty in the transfer or distribution.

On the internal surface of the tube 2 are arranged three passageways such as 2b, angularly arranged at 120°, and which extend along the length of the tube. Each of these passageways opens into the hollow center 2a of the tube along the length thereof.

At one end of the tube (inlet 2c), is secured, particularly by bonding, a stop member comprising a connecting ferrule 3 leading to a compressed air conduit. This member forms in the hollow center a stop shoulder 3a of the last rivet 1D and is shaped to permit the passage of compressed air (baffles 3b at right angles with the passageways).

At the other end of the tube (distribution end 2d) is secured, as by bonding, a ferrule 4 which carries a removable cotter pin 5 retaining the first rivet 1P of the stack. This ferrule 4 is shaped to be able to cooperate with a tool or a riveting machine of a given type.

The rivets are conditioned and oriented in the described apparatus immediately after a sorting operation which permits selecting the rivets in a predetermined range of tolerances (narrower than in the case of the

conditioning in bulk as currently used, in which the tolerances are those of the standard of production). The conditioning apparatus according to the invention is only opened by withdrawal of the cotter pin 5 at the moment of mounting it on the riveting machine, such that no foreign piece may accidentally be mixed in the lot. The characteristics of the lot concerned will be indicated on the tube. It will be understood that to avoid inlet of powder into the tube, the ferrules 3 and 4 may be closed by any appropriate means (removable plug, removable film wrapping the assembly, . . .). When put into place, the rivets are arranged one after another with their axes extending along the axis of the tube.

The distribution of the rivets from the apparatus described above will be carried out by withdrawing the cotter pin 5 and by connecting the connecting ferrule 3 to a source of compressed air (FIG. 3a). The compressed air pressure is exerted on the last rivet 1D, but when the number of rivets exceeds about ten or twenty, the effects of jamming on the column prevent any displacement thereof. In the invention, the compressed air is distributed by the grooves 2b along the length of the tube and the pressure is established in the separating spaces E between the rivets. Under these conditions, the column is no longer subject to a thrusting action leading to jamming, and the fluid exerts its action directly on the first rivet 1P. This rivet is forced toward the end 2d through which it is dispensed. In the example shown, the grooves 2b are closed at the distribution end 2d for emptying solely into the hollow core at the rear of the first piece 1P. However, one or several grooves 2b may empty freely to the exterior at the distribution end without being harmful to the operation. Because of the presence of the head of the rivets, the pneumatic action on the first piece is then accentuated by an aspiration effect.

After discharge of the rivet 1P, the following rivet 1P' (FIG. 3b) becomes the first in the column and is itself subjected to the pressure of the fluid (in addition to the aspiration effect mentioned). This rivet is displaced toward the distribution end through which it is dispensed.

It is convenient to note that when a rivet is displaced in the column (FIG. 3c), it creates a depression in the space E which separates it from the following rivet, such that the latter is subjected to a pneumatic force tending to cause it to advance in the tube. The column is then shifted progressively toward the dispensing end in proportion to the dispensing of rivets situated opposite this end, and this, with a precise guiding of each rivet at its head.

This distribution process permits arranging a very great number of rivets in the tube, since the transfer and dispensing, which are caused by a direct pneumatic effect on the first rivet, are independent of the number of rivets situated upstream thereof.

The longitudinal grooves or passageways which permit the air pressure to be established all along the length of the tube may be of any cross-section and produced by any process (molding, extrusion, machining, etc.). They may be linear (that is, parallel to the axis of the tube) or they may be helical or any other shape. (By "longitudinal groove or passageway" is meant a passageway extending in the direction of the length of the tube.)

By way of example, FIG. 4 shows in cross-section another type of tube in which the grooves are formed

by a plurality of grooves which are arranged on the internal face of the tube around its hollow center.

FIG. 5 shows an apparatus for orientation and distribution of the type described previously, produced by means of a flexible tube which is rolled around a form such as a spool or a cylindrical support 7. It is understood that the radius of curvature of the coils is sufficiently great with respect to the diameter of the tube to permit a sliding of the rivets without difficulty. The grooves 8 for the pressure distribution along the tube are analogous to those heretofore described.

FIGS. 6 and 7 show another embodiment in which the guide tube for the rivets is rolled in helical form in the shape of a disk and is formed by two half-shells 9 and 10 which are fastened one to the other, for example by means of rivets 11. Each half-shell is molded to form one half of the section of the tube. The grooves for distributing the pressure are formed by the passages 12 coming from the mold, situated at the level of the joints between the half-shells. In the detail view of FIG. 7, a head of a rivet T guided on its periphery in the tube of the apparatus is shown, with the grooves 12 for establishing the pressure along the length of the tube. The inlet to the tube, which is caused to be connected to the compressed air source, may be formed by connecting pieces 13 and 18, the piece 13 being inserted between the two shells at the moment of their joining. The dispensing end may be provided as before with a bonded ferrule 14.

FIGS. 8 and 9 show another embodiment in which the guide tube for the rivets is rolled in a double helix, advancing —a— and return —b—, with a central connection —c— between the advance and return. The tube is shown in the form of a disk formed with an undulating wall 19 and two plates 20 and 21 secured on opposite sides of the wall, for example by bonding to the peaks of the undulations. The pressure distributing grooves 22 are situated at the level of the joints between the corrugated wall and the plates. In the detail of FIG. 9, a head of a rivet T' is shown, guided on its periphery with the grooves 22 for establishing the pressure along the tube.

FIG. 10 shows an apparatus with several tubes in the form of superimposed disks of the preceding type 23, 24, 25 Such an apparatus permits orienting and distributing a very large number of rivets, with reduced bulk.

Further, by way of illustration, FIG. 11 shows the dispensing end of an apparatus according to the invention, associated with a head of a riveter which receives a distribution of rivets, one by one, toward the riveting means. In the example, the ferrule 4 of the device is fixed on a plate 15 of the riveter and a movable slide 16 receives each rivet at the outlet of the dispensing tube 55 for transferring it to a tube 17 for feeding a riveting means.

While this invention has been described as having certain preferred features and embodiments, it will be understood that it is capable of still further variation and modification without departing from the spirit of the invention, and this application is intended to cover any and all variations, modifications and adaptations which fall within the spirit of the invention and the scope of the appended claims.

We claim:

- An apparatus for orienting identical pieces, comprising at least one tube (2) having a hollow center (2a) for housing and guiding a plurality of said pieces

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aligned one after another therein, at least one groove (2b) arranged on the internal surface of the tube in such a manner as to open into the hollow center along the length thereof, and stop members (3, 4) situated at the ends of the tube for retaining the pieces, said tube (2) being filled with said pieces comprising rivets arranged in a column, said rivets having heads such that the transverse cross section of the heads correspond to the transverse cross section of the tube and such that the cross sectional area of the heads substantially equals the cross sectional area of the tube excluding the at least one groove.

2. A dispensing apparatus as in claim 1, and wherein said tube (2) includes a plurality of said grooves (2b) arranged about its hollow center.

3. A dispensing apparatus as in claim 2, and wherein said tube is coiled in a helix in the form of a disk formed of two half-shells (9, 10) secured one to the other, said

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grooves (12) being situated at the joints between half-shells.

4. A dispensing apparatus as in claim 2, and wherein said tube is coiled in a double forward-return helix with a central connection between forward and return, said tube being in the shape of a disk formed of a corrugated wall and two plates secured on opposite sides of said wall, the grooves being situated at the joints between the corrugated wall and the plates.

5. A dispensing apparatus as in claim 4 and comprising a plurality of said tubes in the form of superimposed disks.

6. An orienting apparatus as in claim 1, and wherein one of said stop members (3) comprises a ferrule connecting to a source of compressed fluid, the other stop member (4) comprising a ferrule provided with a removable pin (5).

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**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

NOTICE OF ASSIGNMENT TO UNITED STATES MAGISTRATE JUDGE FOR DISCOVERY

This case has been assigned to District Judge Christina A. Snyder and the assigned discovery Magistrate Judge is Margaret A. Nagle.

The case number on all documents filed with the Court should read as follows:

CV09 - 3350 CAS (MANx)

Pursuant to General Order 05-07 of the United States District Court for the Central District of California, the Magistrate Judge has been designated to hear discovery related motions.

All discovery related motions should be noticed on the calendar of the Magistrate Judge

NOTICE TO COUNSEL

A copy of this notice must be served with the summons and complaint on all defendants (if a removal action is filed, a copy of this notice must be served on all plaintiffs).

Subsequent documents must be filed at the following location:

Western Division
312 N. Spring St., Rm. G-8
Los Angeles, CA 90012

Southern Division
411 West Fourth St., Rm. 1-053
Santa Ana, CA 92701-4516

Eastern Division
3470 Twelfth St., Rm. 134
Riverside, CA 92501

Failure to file at the proper location will result in your documents being returned to you.

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

Ateliers de la Haute-Garonne, a French corporation, F2C2 System S.A.S., a French corporation v. Broetje Automation USA Inc., a Delaware corporation, Claas Fertigungstechnik GmbH d/b/a Broetje Automation GmbH, a German corporation, Claas KGAA MBH German corporation	PLAINTIFF(S) CASE NUMBER CV 09-03350 (AGW/MH)
SUMMONS	

TO: DEFENDANT(S): Broetje Automation, USA, Inc., Claas Fertigungstechnik GmbH d/b/a Broetje Automation GmbH, Claas KGAA mbH.

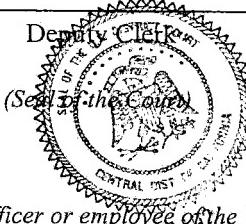
A lawsuit has been filed against you.

Within 20 days after service of this summons on you (not counting the day you received it), you must serve on the plaintiff an answer to the attached complaint amended complaint counterclaim cross-claim or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff's attorney, Rhonda Trotter, whose address is Kaye Scholer LLP, 1999 Avenue of the Stars, Suite 1700, Los Angeles, CA 90067. If you fail to do so, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

Clerk, U.S. District Court

Dated: MAY 12 2009

By: LA'REE HORN



[Use 60 days if the defendant is the United States or a United States agency, or is an officer or employee of the United States. Allowed 60 days by Rule 12(a)(3).]

UNITED STATES DISTRICT COURT, CENTRAL DISTRICT OF CALIFORNIA
CIVIL COVER SHEET

I (a) PLAINTIFFS (Check box if you are representing yourself <input type="checkbox"/>) ATELIERS DE LA HAUTE-GARONNE, F2C2 SYSTEM S.A.S.	DEFENDANTS BROETJE AUTOMATION, USA INC., CLAAS FERTINGUNGSTECHNIK GMBH D/B/A BROETJE AUTOMATION GMBH, CLAAS KGAA MBH																																		
(b) Attorneys (Firm Name, Address and Telephone Number. If you are representing yourself, provide same.) Rhonda Trotter, Kaye Scholer LLP, 1999 Avenue of the Stars, Suite 1700, Los Angeles, CA 90067, (310) 788-1000																																			
II. BASIS OF JURISDICTION (Place an X in one box only.)																																			
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Relations <input type="checkbox"/> 730 Labor/Mgmt. Reporting & Disclosure Act <input type="checkbox"/> 740 Railway Labor Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Empl. Ret. Inc. 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CV 09-03350

FOR OFFICE USE ONLY: Case Number:

AFTER COMPLETING THE FRONT SIDE OF FORM CV-71, COMPLETE THE INFORMATION REQUESTED BELOW.

**UNITED STATES DISTRICT COURT, CENTRAL DISTRICT OF CALIFORNIA
CIVIL COVER SHEET**

VIII(a). IDENTICAL CASES: Has this action been previously filed in this court and dismissed, remanded or closed? No Yes
If yes, list case number(s): _____

VIII(b). RELATED CASES: Have any cases been previously filed in this court that are related to the present case? No Yes
If yes, list case number(s): _____

Civil cases are deemed related if a previously filed case and the present case:

- (Check all boxes that apply) A. Arise from the same or closely related transactions, happenings, or events; or
 B. Call for determination of the same or substantially related or similar questions of law and fact; or
 C. For other reasons would entail substantial duplication of labor if heard by different judges; or
 D. Involve the same patent, trademark or copyright, and one of the factors identified above in a, b or c also is present.

IX. VENUE: (When completing the following information, use an additional sheet if necessary.)

- (a) List the County in this District; California County outside of this District; State if other than California; or Foreign Country, in which EACH named plaintiff resides.
 Check here if the government, its agencies or employees is a named plaintiff. If this box is checked, go to item (b).

County in this District: [*]	California County outside of this District; State, if other than California; or Foreign Country
	Ateliers de la Haute-Garonne - France F2C2 System S.A.S. - France

- (b) List the County in this District; California County outside of this District; State if other than California; or Foreign Country, in which EACH named defendant resides.
 Check here if the government, its agencies or employees is a named defendant. If this box is checked, go to item (c).

County in this District: [*]	California County outside of this District; State, if other than California; or Foreign Country
	Breitje Automation, USA, Inc. - Delaware/Nebraska Claas Fertigungstechnik GmbH - Germany Claas KGaA mbH - Germany

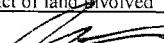
- (c) List the County in this District; California County outside of this District; State if other than California; or Foreign Country, in which EACH claim arose.

Note: In land condemnation cases, use the location of the tract of land involved.

County in this District: [*]	California County outside of this District; State, if other than California; or Foreign Country
Los Angeles	

* Los Angeles, Orange, San Bernardino, Riverside, Ventura, Santa Barbara, or San Luis Obispo Counties

Note: In land condemnation cases, use the location of the tract of land involved

X. SIGNATURE OF ATTORNEY (OR PRO PER): 

Date

5/12/09

Notice to Counsel/Parties: The CV-71 (JS-44) Civil Cover Sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law. This form, approved by the Judicial Conference of the United States in September 1974, is required pursuant to Local Rule 3-1 is not filed but is used by the Clerk of the Court for the purpose of statistics, venue and initiating the civil docket sheet. (For more detailed instructions, see separate instructions sheet.)

Key to Statistical codes relating to Social Security Cases:

Nature of Suit Code	Abbreviation	Substantive Statement of Cause of Action
861	HIA	All claims for health insurance benefits (Medicare) under Title 18, Part A, of the Social Security Act, as amended. Also, include claims by hospitals, skilled nursing facilities, etc., for certification as providers of services under the program. (42 U.S.C. 1935FF(b))
862	BL	All claims for "Black Lung" benefits under Title 4, Part B, of the Federal Coal Mine Health and Safety Act of 1969. (30 U.S.C. 923)
863	DIWC	All claims filed by insured workers for disability insurance benefits under Title 2 of the Social Security Act, as amended; plus all claims filed for child's insurance benefits based on disability. (42 U.S.C. 405(g))
863	DIWW	All claims filed for widows or widowers insurance benefits based on disability under Title 2 of the Social Security Act, as amended. (42 U.S.C. 405(g))
864	SSID	All claims for supplemental security income payments based upon disability filed under Title 16 of the Social Security Act, as amended.
865	RSI	All claims for retirement (old age) and survivors benefits under Title 2 of the Social Security Act, as amended. (42 U.S.C. (g))